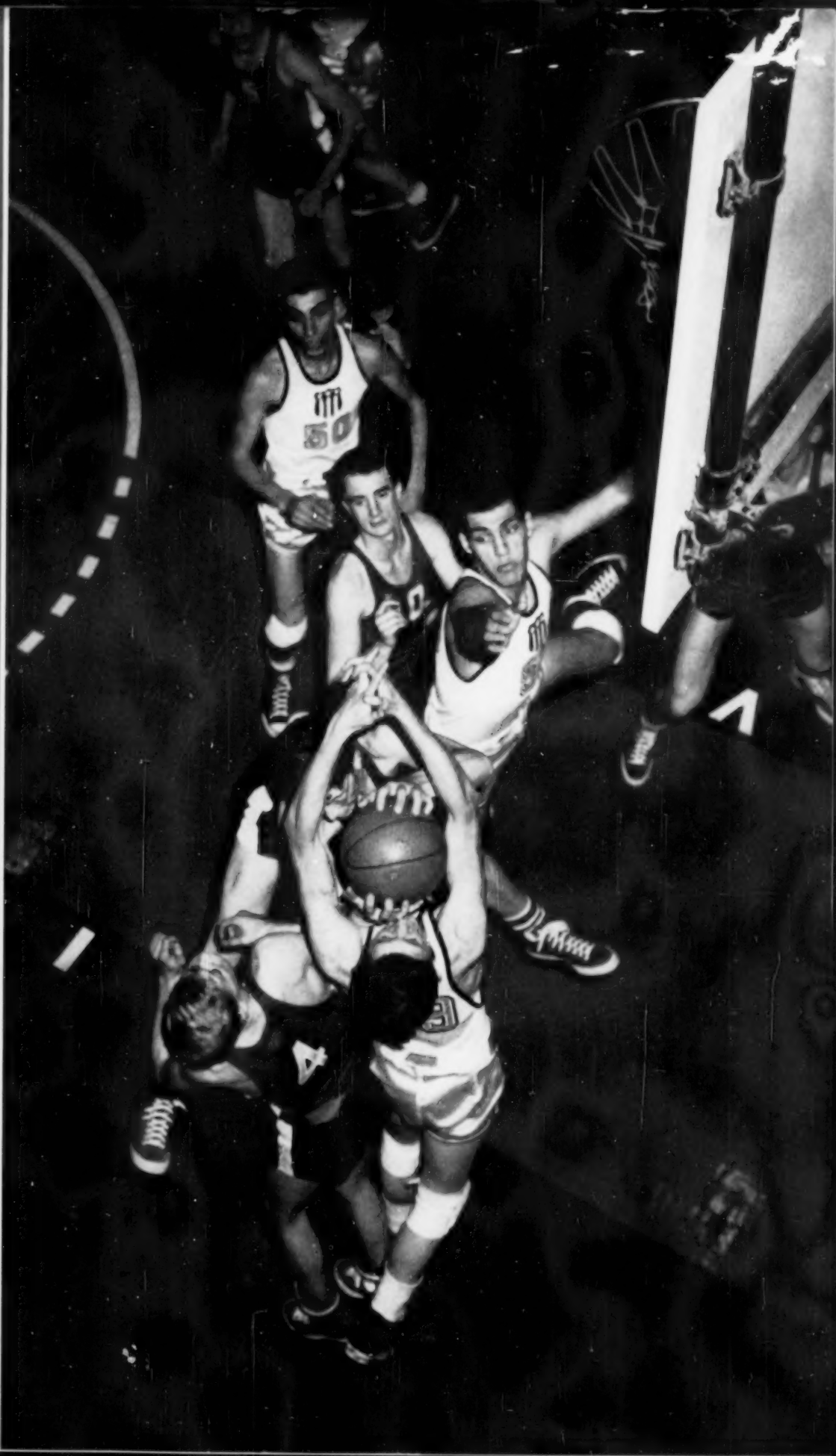


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NOVEMBER 1955 • 25c



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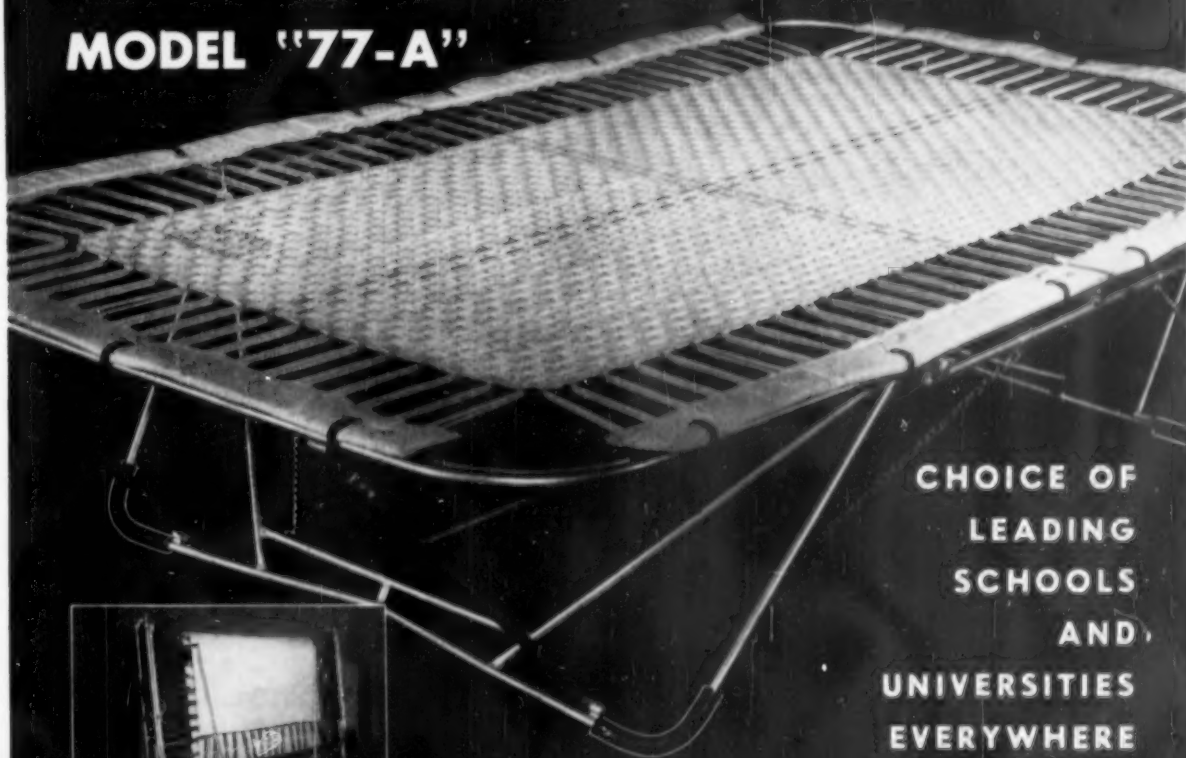
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VOLUME 25 • NUMBER 3 • NOVEMBER

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It's all in the sTa-Tis-Tics!

IT'S a pleasure to raise our vile baritone and bawl "happy birthday" greetings to the National Collegiate Athletic Association. The NCAA is 50 years young this year, and we wish them the longest life and the happiest sanitary codes.

Like rare wines and Humphrey Bogart, the august collegiate body seems to improve with age. Born out of a wedlock of 13 colleges in 1905, the NCAA today is proud papa to 465 institutions of higher learning which feed varsity competition to more than 130,000 students in over 26 sports.

In good times and bad, the NCAA has proved a solid provider; and the excellent good health of our college sports is due in great part to its sterling ministrations.

May the next 50 years yield as many happy returns!

IT WAS the irrepressible Jimmy Crowley who best summed up the old timer's attitude toward modern football. Watching a game in which the ball flew back and forth in crazy fashion, Jimmy—a Rockne disciple of fundamental football—shook his head mournfully and murmured:

"The game sure has speeded up since they eliminated the center jump."

That football has speeded up, nobody will gainsay. That scoring has soared, is just as obvious. But two questions remain to be answered: (1) Exactly where does the "old time" game end and the "modern" game begin? and (2) Exactly how much more scoring is there in the present-day game?

Since we lead an impossibly busy life, we've never attempted to ferret out the answers. We figured that some smart Springfield College grad, bucking for his M.A., would do it for us some day.

But fate recently poked a finger in our direction, and what do you know. It led us right smack to the answers!

The divination occurred while we were browsing through the football records. We turned a page and there before us was a listing of the national champions from 1924 through 1954 (as picked by the Associated Press), replete with won-lost records and points scored by and against.

Our first reaction was merely one of mild interest. But, as we kept studying the statistics, they suddenly took on a clearcut pattern. From 1924 to 1941, they hued to one line;

and then, in 1942, they took a sudden turn into another.

What happened to the game between 1941 and 1942, we asked ourselves? And then it hit us. It was in 1940 that Clark Shaughnessy took over a much-beaten Stanford team and proceeded to lick everybody in sight. But it wasn't so much what he did as the way that he did it that captured the imagination of the coaching fraternity. That was the year Shaughnessy introduced the modern T to college football.

The 1941 season was a transitional year for the college game. That's when most coaches began converting their single wings into man-in-motion T's. By 1941 the conversion had been effected, and the country became deluged with fluid T's.

Look at how this conversion was reflected in the statistics: In the last three years of the single-wing heyday (1939-41), the national champions (Texas A. & M. and Minnesota twice) scored 198, 154, and 186 points, respectively. In the first three years of the T era (1942-44), the national champions (Ohio State, Notre Dame, and Army) scored 337, 340, and 504 points!

Isn't it as plain as A-B-T, then, that the year 1941 spelled f-i-n-i-s to the old order and ushered in the new, and that the T formation is chiefly responsible for the wholesale production of tds and points?

Let's break down the statistics a little more:

From 1924 to 1941 (the old order), the 18 national champions scored 4,040 points and yielded 734 points in 164 games. That averages out to 24.6 points for and 4.5 points against per game.

From 1942 to 1954 (reign of the T), the 13 national champions tallied 4,324 points and yielded 876 points in 123 games. Which averages out to 35.1 points for and 7.1 points against per game.

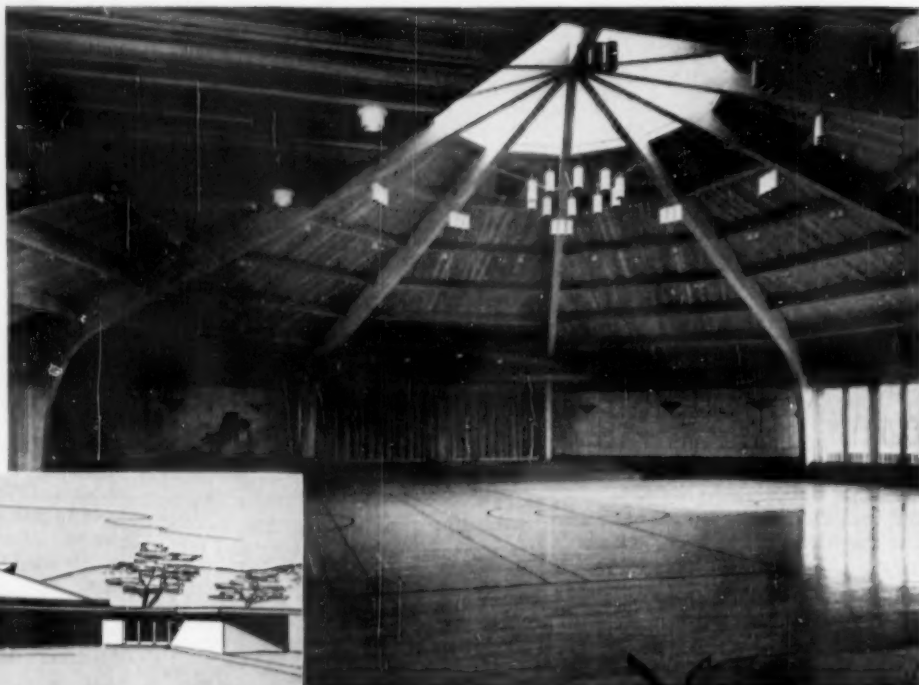
(Concluded on page 41)

STATISTICAL BREAKDOWN OF NATIONAL CHAMPIONS

Year	Team	W.	L.	T.	For	Agst.
1924	Notre Dame	9	0	0	258	44
1925	Dartmouth	8	0	0	340	29
1926	Stanford	10	0	0	261	79
1927	Illinois	7	0	1	152	24
1928	U. S. C.	9	0	1	267	59
1929	Notre Dame	9	0	0	145	38
1930	Notre Dame	10	0	0	265	74
1931	U. S. C.	9	1	0	342	40
1932	Michigan	8	0	0	123	13
1933	Michigan	7	0	1	131	18
1934	Minnesota	8	0	0	270	38
1935	S. M. U.	12	0	0	288	32
1936	Minnesota	7	1	0	203	32
1937	Pittsburgh	9	0	1	203	34
1938	T. C. U.	10	0	0	254	53
1939	Texas A&M	10	0	0	198	18
1940	Minnesota	8	0	0	154	71
1941	Minnesota	8	0	0	186	38
1942	Ohio State	9	1	0	337	114
1943	Notre Dame	9	1	0	340	69
1944	Army	9	0	0	504	35
1945	Army	9	0	0	412	46
1946	Notre Dame	8	0	1	271	24
1947	Notre Dame	9	0	0	291	52
1948	Michigan	9	0	0	252	44
1949	Notre Dame	10	0	0	360	86
1950	Oklahoma	10	0	0	345	135
1951	Tennessee	10	0	0	373	88
1952	Michigan St.	9	0	0	312	84
1953	Maryland	10	0	0	298	31
1954	Ohio State	9	0	0	229	68

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John M. Reeves Student Union Building, Centenary Junior College, Hackensack, N.J. Architect: Jan Hird Pokorný, New York, N.Y. Gen'l Contractor: Fred J. Brotherton, Inc., Hackensack, N.J. Accorded Award of Merit for excellence of design by American Institute of Architects, 1955.



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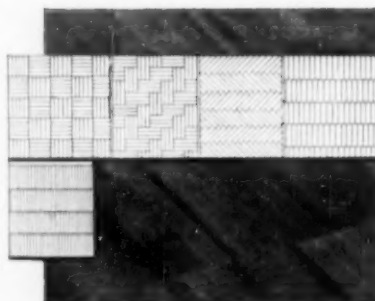
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By **BOB VANATTA**
Head Coach, Bradley University

BRADLEY'S BOX WEAVE

For Teams Without a High-Scoring Pivot Threat

SEVERAL years ago, it became necessary for me to install an offense which did not depend upon prolific scoring from the pivot. We didn't have that big man, but we did have a pair of good scoring forwards and at least average scoring guards. The squad also possessed good drive and a decided predilection for the jump shot.

With these factors in mind, plus the basic requirements of all good attacking patterns — continuity of movement, rebound strength, defensive and offensive balance—I developed what is now known as the Box Weave Offense.

Diag. 1 shows the floor positions of the players at the start of the movement. Player 1 sets up on the free-throw lane on a line with the front rim of the basket, while No. 2 assumes a corresponding position on the other side of the lane.

As you can see, these positions are indicated on the new widened lane. In years past, the players had been placed about three feet outside the lane. Hence, the only effect of the widened lane has been to push the lane lines-out to meet them.

Player 3, our pivot, who is one of our better rebounders, is placed in the regular pivot position. As you can quickly note, the widened lane has made it necessary for us to move him out. However, the new rule shouldn't affect us as much as it does other pivot teams. In fact, it could benefit us, as it opens up the middle for better driving.

Players 4 and 5 set up the width of the free-throw circle apart. While the defensive positions of the men guarding them determine their locations somewhat, we've found the best deployment is about two steps outside the circle.

The pattern begins with 4 passing to 5 (**Diag. 2**). Nos. 1 and 2 hold their positions until 4 starts across to set an inside screen on X-5. As 4 comes over, it's important for 5 to fake to his right, since a threat to the weak side strengthens the pattern.

Meanwhile, 1 and 2 break across the lane. They time their moves so that they meet approximately under the hoop, with 2's path being the nearer to the base line. This makes for a more effective screen.

As 2 clears 1's screen, he should cut sharply up the floor, not swing wide. The sharp cut helps reduce his guard's chances of staying with him.

Diag. 3 shows the continuation of the pattern, with 5 driving off 4's screen. No. 5 tries to dribble close to the curve of the circle, and hits 2 with a pass as the latter cuts up the floor.

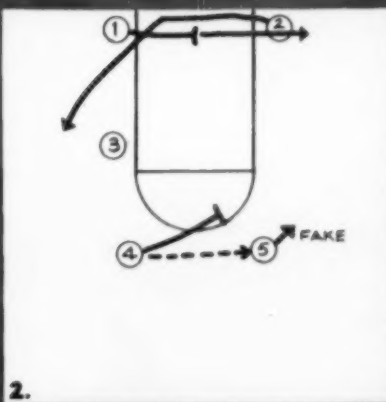
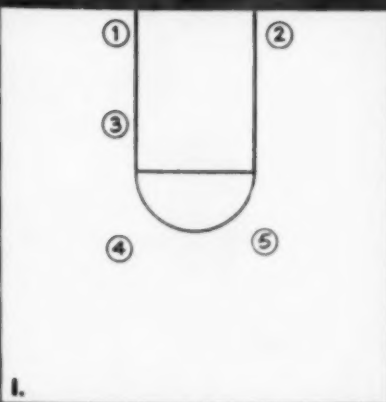
No. 5 follows his pass and attempts to set up a double screen with 3 on X-2. No. 1 has now taken No. 2's original position under the basket. Player 4 swings out a couple of steps and waits for 2 to declare himself.

No. 2 now has the first of several scoring opportunities. He may take his shot over the double screen set by 3 and 5, or he can swing back for a dribble-drive to the board (**Diag. 4**).

If 2 shoots over the top, then 3, 5, and 1 go to the board for the rebound, with 4 and 3 dropping back for defensive purposes.

The third option is to go into the next step of the continuation (**Diag. 5**). No. 2 now drives around the double screen with the thought of driving to the board if the opportunity materializes. As 2 drives by the

(Continued on page 38)



Cousy Passing

The greatest star in the game today, Bob Cousy is the player compleat—a great shooter, dribbler, passer, faker, etc. In these action sequences—set up exclusively for Scholastic Coach—the great Boston Celtic ace demonstrates the mechanics of the three basic passes—chest, baseball, and hook.



CHEST



BASEBALL



HOOK



"My 7 Cardinal Defensive Principles"

By ADOLPH RUPP

Head Coach, University of Kentucky



MANY—you might even say most—basketball experts contend that defense is being shamefully neglected. They point to the astronomical scores and shake their heads. "Defense," they say, "is being thrown out the window. It isn't like the old days when a coach worked just as hard on defense as he did on offense."

I don't believe this is true. On the contrary, I believe we're working harder on it today than we ever have in the past. We've got to. The modern offensive player is tremendously better equipped than the player of 30 or even 20 years ago, and coaches must work twice as hard to stop him.

To anyone who believes that modern defensive basketball is being neglected, I'd like to pose these questions:

1. How do you defend the quick, running one-handed shot?
2. How do you instruct your men to guard against the hook shot?
3. How do you teach your players to guard the pivot man on the step-in-step-out hook shot?
4. How do you instruct a player to guard the running jump shot?
5. How do you teach a man to stop the dribble-stop jump shot?

After thinking about these things for a while, I believe you'll come to the same conclusion as I have: That offensive techniques have simply outrun defensive techniques.

Even today, the smallness of a score doesn't necessarily indicate that good defense was employed. Far from it. What I'd want to know is:

1. How many shots were taken?
2. How long did it take a team to set up a play?
3. Was ball-control permitted?
4. Was any attempt made to de-

liberately withhold the ball from play?

In the answers to these questions may be the key to the smallness of the score.

Defensive play isn't appreciated by many spectators and coaches. Being unspectacular, it is often disregarded. But I believe that a check of the outstanding teams year after year will reveal that good defense has contributed greatly to their success.

Their coaches know that defense is less ephemeral than offense; that on an evening when the offense isn't clicking the game can be salvaged by that steady, consistently good defense. A team without a good defense hasn't anything to fall back upon when its shooting goes "off."

At Kentucky we're convinced that our defense will save us on the nights when our offense isn't working. Our boys are taught to realize the importance of defense—individual as well as team play—and we spend one-third of our time on it.

I believe that good defense embodies seven cardinal principles, as follows:

1. *Cut down the number of shots.*

You've all heard the saying, "Take enough shots and the percentage will take care of itself." That may be true, so the first thing to do is cut down the number of shots *you give the other team.*

In going back over our shot charts for a period of five years, we've found a very reliable trend on the number of shots taken—and that is to give the opponents as few shots as possible. They still must shoot to score, and if you can reduce their scoring opportunities by aggressive defense you will eliminate the danger of a high score.

(Continued on page 35)





By JACK RAMSAY, Coach, St. Joseph's College (Pa.)

A 3-2 Pattern Against the Man-to-Man

ALTHOUGH the trend in present-day basketball is toward the seven-foot basket dunkers, the zone defense, and the fast break, a successful team must still be able to meet the man-to-man defense with some sort of planned attack.

The 3-out 2-in pattern offers a powerful weapon against the man-to-man. It provides for continuity of movement, individual free-lance opportunities, and good balance for offensive rebounding and defensive security.

In the accompanying series of plays off this pattern, a signal is used to initiate the maneuver. The tip-off is usually—but not always—flashed by the backcourt man with the ball.

In **Diag. 1**, the middle man (1) has worked a simple give-and-go with one of the other backcourt players, (3). If he succeeds in getting the necessary half-step lead on his defensive man, he'll get the return pass and go in for the lay-up. If he doesn't receive the return pass, he moves across to screen for the corner man (5).

The corner man will cut hard off the screener's back or move out to

weave, depending upon the effectiveness of the screen. If, in cutting hard off the screen, the corner man receives the pass and "sees daylight," he goes all the way for his shot, of course.

If stopped in his drive, 5 sets up a post for the remaining outside men (2 and 3), enabling them to scissor off for the hand-off. The middle man (1) returns outside for balance and defense, while the other corner man (4) crashes the board for the rebound.

While this option allows for individual initiative, it's still kept within the confines of a pattern offense. The middle man, the corner man, and the other outside men may all work toward the score, but—when ever unsuccessful in their individual attempts—they help set up a play for the others.

Diag. 2 illustrates the beginning of a simple give-and-screen. This movement by the middle man (1) tells his teammates that he's starting a weave pattern. If 1 succeeds in screening X-2, 2 will either drive off the screen or, if X-2 floats, set and shoot.

In most instances, the defensive

man won't drift too far back, so the screen is set inside of him. When the defense starts sagging, it's imperative for the outside men to shoot the set—and even more imperative that they be able to make it!

Assuming 2 drives off the middle man, he goes all the way if he can. If stopped, he passes to 3 and screens for him—deep for the drive or shallow for the set, depending upon the position of the defensive man.

So far this series has involved three men. The other two inside men can be brought into the pattern in one of two ways. If the middle man (1), after screening for his pass receiver (in this instance, 2), wants to launch a five-man weave, he continues to the corner and screens for 4.

The latter moves out into the weave and follows the pattern of passing and screening, looking for the drive-in or set each time he handles the ball, and looking to screen his teammate's man when he has passed it. No. 5 may be brought into the weave in the same manner.

Another method of bringing the corner men into the pattern is to have them break out to a post posi-



tion while the outside men move in a three-man weave. Timing is important, for the corner man must break out to meet the pass but at the same time avoid interfering with the outside men who may be driving through. The widened lane in collegiate ball will aid in keeping the middle open for the drivers.

If the outside men don't free a player for a drive-in or good set shot by using the three-man weave, they can use either of the two inside men as a post to scissors off.

Diag. 3 shows the start of the give-and-screen for the opposite side. In this sequence, the middle man (1) has passed to one of his outside men (2) and then has moved to screen for the man on the opposite side (3).

The screen must be deep enough to permit the cutter, 3, to fake his man inside, then break hard across the lane for the pass and shot. If 3 doesn't liberate himself, the corner man, 4, breaks out into the post position to set himself for the pass and hand-off to the outside cutters (2 and 1).

Anytime the ball is passed into the post, there must be two men cutting off. The passer cuts first, then is followed by the outside man in best position to drive off the other side of the post. It must be noted that any player cutting through the lane who doesn't receive the pass, should clear the lane area and attempt to screen for a corner man while doing so.

Diag. 4 shows the middle man

passing into the high post, driving off the post himself, then being followed by 2. This play is particularly effective against a pressing defense, since it gives the backcourt man a good penetrating pass and also provides plenty of cutting room.

The post man should maneuver for all passes made to him, moving to the ball. This is especially important in the high post position. The remaining outside man, 3, stays put for backcourt defense, while the other inside man (5) moves to the foul line for the long rebound and defensive purposes.

Diag. 5 illustrates a pattern in which the ball is advanced up the side and passed into corner man, 4. The passer (2) and the middle man (Continued on page 36)



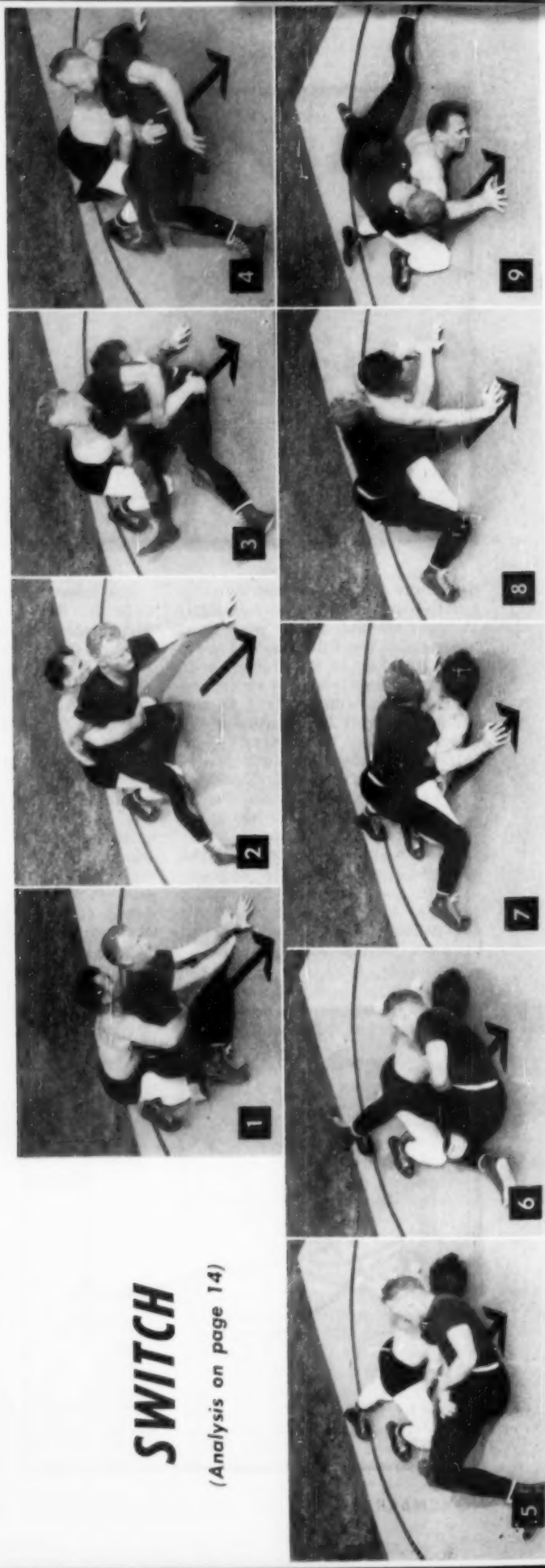
SIT OUT

(Analysis on page 14)



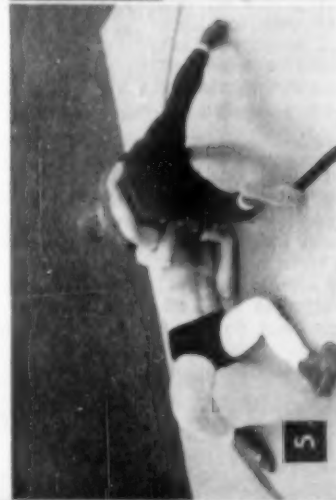
SWITCH

(Analysis on page 14)



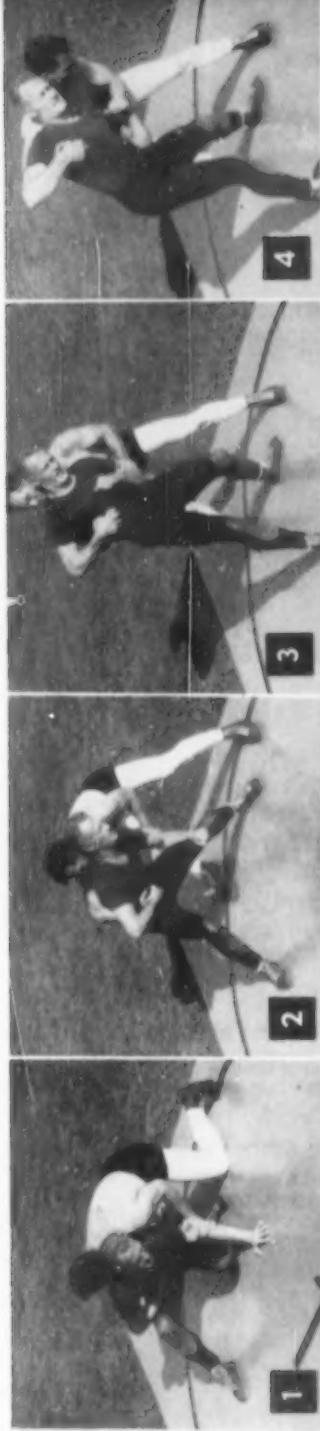
WHIZZER

(Analysis on page 16)



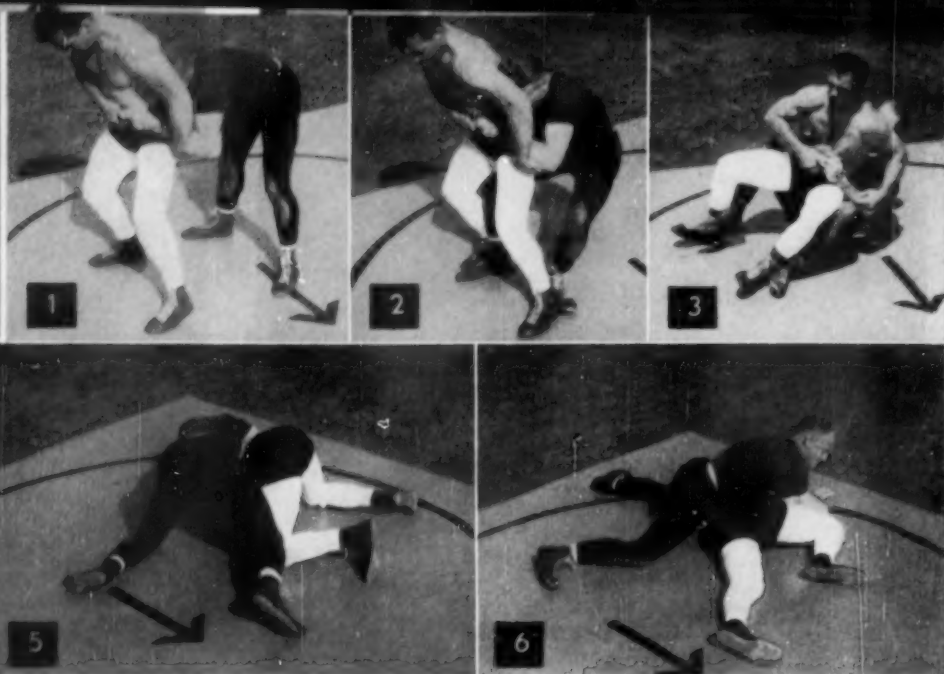
STAND UP

(Analysis on page 16)



BACK HEEL

(Analysis on page 16)



COMING TO GRIPS

PART 2

By **RAYMOND E. SPARKS**

Former Wrestling Coach, Springfield College

SPRINGFIELD COLLEGE has developed a sound, practical wrestling course designed to motivate self-activity in 72 basic skills. Arranged in teaching progression with the needs of both the beginning and experienced wrestler kept clearly in mind, the course is compounded into thirty 50-minute periods and is required of all physical ed majors.

Seven of the basic holds were illustrated and analyzed last month. Following are six more fundamental techniques. In the illustrations, the wrestler executing the move is in dark uniform and is designated as "A" in the analyses. His adversary in white is designated as "B."

SIT OUT AND TURN IN TO CRAWFISH (p. 12)

1. **Start:** Referee's position—A underneath and B on top with right arm around A's waist.

2. **Step and Reach:** A steps up and out on right foot and moves left arm forward on mat to draw ankle and arm away from B.

3. **Sit:** A swings left leg under right, bringing left elbow into stomach. As he lands on mat on left side, A raises right leg forward and moves left leg backward in scissors position, keeping knees bent and legs wide apart.

4. **Turn:** Continuing scissors action of legs, A places feet on mat to turn into front bridge on left shoulder. He places right hand on mat in front of forehead. Left arm is straightening out under body for rotation outward on recovery.

5. **Front Bridge:** A pivots on left shoulder and balls of both feet into front bridge on left shoulder. Left arm continues to rotate outward and right hand pushes on mat for balance. Both knees are set out wide for recovery.

6. **Recover:** A sets right knee on mat and rotates left arm out and around B's back to start crawfish maneuver.

7. **Crawfish:** A bucks into position on feet, pivoting on right hand with left arm hooked deep around B's ribs. B's right arm has started to slide off A's back, as A keeps head down to provide for this action.

8. **Step Over:** A continues pivot on

right hand as he steps left leg over to far side of B and pulls B under him with left arm. A extends left hand into B's crotch for inside crotch pry leverage and drives off left foot to apply pressure against B's left hip with inside of left thigh. A's right hand remains on mat until he maintains stability on top of B or breaks him down.

SWITCH TO TWO-ON-ONE BAR ARM (p. 12)

1. **Move Hand:** From referee's position—A underneath and B on top with right arm around A's waist—A moves right hand across left hand and away from B.

2. **Hand in Pocket:** A extends right leg backward and places right hand on right buttock, as if reaching in hip pocket.

3. **Sit:** A swings left leg under right, pivoting on left hand and right foot to sitting position on mat with right arm extended into B's crotch. A's right hand is pressed against inside of B's right thigh, and he pulls on B's right arm with left hand to get armpit as close to B's armpit as possible.

4. **Extend:** A extends right arm and extends body as he raises buttocks off mat and swings it away from B. This forces B's right shoulder to mat.

5. **Break Down:** A follows through with leverage on B's arm until B is broken down on mat. A may need to push B's right arm into A's crotch to avoid hurting it on the turn until B reacts automatically to removal of his arm.

6. **Turn:** A swings left leg upward and forward across B as he turns off right elbow and right foot to top position.

7. **Recover:** A steps across B with



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CROSS-FACE

(Analyzed on page 18)



1



2



3



4



5



6

left leg and, keeping knees wide, presses weight into B by driving with feet on mat and forcing abdomen against B's right hip.

8. *Two-on-One:* As B tries to recover to knees, A hooks both hands on B's left wrist, ready to pull B's arm in under him with right hand as he applies bar-arm leverage with left arm.

9. *Leverage & Position:* A moves around to B's back, applying leverage across B's upper back with left arm as he holds B's wrist with right hand. A keeps legs spread and drives with feet on mat, forcing left shoulder into B's right shoulder blade.

WHIZZER HIP THROW FROM UNDERNEATH to REVERSE NELSON (p. 13)

1. *Start:* Referee's position—A underneath and B on top with right arm around A's waist.

2. *Overhook Arm:* A raises left arm and rotates it backward over B's right arm near shoulder, hooking B's arm in crook of elbow and pulling B's arm up and into him. A keeps right arm flexed at elbow and right hand clenched into waist.

3. *Step:* A steps left foot across under B as he pulls B's right arm up and into him.

4. *Throw:* A puts left knee on mat to rotate hip in and under B as far as possible, pulling B up and over his left leg and hip. As A drives off right foot, he continues to pull up and in on B's right arm, starting B off-balance by rolling him off hip toward mat.

5. *Recover:* As B falls to mat, A recovers in circular motion around B's head and drops left hand back of B's head for nelson.

6. *Set Head:* A sets nelson by pushing B's head down and in with right hand as he continues movement around B's head.

7. *Deep Reverse Nelson:* As A moves on behind B, he slides left arm in for deep reverse nelson. When B bridges, A reaches under B's back with right arm so as to hook hand into his left hand.

8. *Pin:* A hooks hands together and flexes arms to pull B in snug. A extends left leg and bends right knee, keeping center of gravity close to mat as he pulls B in close and under his chest.

BACK HEEL FROM REAR STANDING (p. 14)

1. *Start:* Rear standing position with a standing behind B. Back of A's right hand is against B's lower abdomen. A hooks hands together, pulling right arm around B's abdomen as he presses down on B's hip with left forearm. A's legs are back away from B's reach, spread in comfortable position. Right side of A's face is pressed against B's left side just above his hip. B takes hold of A's right hand and pulls up on A's left forearm with left to loosen pressure of grip around his waist.

2. *Jump:* A jumps both feet for-

ward, placing left arch against B's left heel with right foot placed inside B's right foot. A has both knees turned out.

3. *Sit:* A sits down as in a chair and pulls B into lap. A turns both knees to outside as he draws right instep along under B's right leg toward crook of knee.

4. *Kick Over:* A pulls B to left and reaches for B's left wrist with both hands as he gives B's right leg a thrust with right instep to roll B over to left.

5. *Recover:* A gets the two-on-one bar on B's left arm as he swings left leg under right. A turns on balls of feet, setting knees out wide as he recovers at right angles to B with leverage on two-on-one bar arm. (See Switch to Two-On-One Bar Arm.)

6. *Leverage:* A straightens left arm across B's back, pressing left shoulder into B's right shoulder blade as he pries up with left hand hooked under crook of B's left elbow. A keeps hold of B's right wrist with right hand and swings body above a right angle, keeping knees and toes turned out as he applies leverage across B's upper back.

STAND-UP-ESCAPE (p. 13)

1. *Start:* Referee's position—A underneath and B on top with right arm around A's waist. A pushes on mat with both hands, forcing weight back over legs and pushing left side of back into B's chest.

2. *Tripod Position:* As B steps right foot behind A, A continues to force backward into B. A steps up on right foot to brace against B's force as he takes hold of B's four fingers in right hand and slides left hand back along-side left leg for support, raising left knee off mat. A also keeps left arm close to side to prevent B from locking left arm around A's waist. A tries to get center of gravity over center of base by turning hips away from B and raising left knee up and into B. This action also swings B in behind A and relieves sideward force B has been exerting.

3. *Stand:* As A rotates hips away from B, he moves up into standing position—bracing left forearm against right thigh for additional support against B's force. A continues to control B's right hand by holding B's fingers and locking B's arm against side with right arm. B stands to both feet and moves in close to A, keeping left hand hooked on A's arm to control him.

4. *Walk-Stride Position:* As B moves in behind and pulls A in close to chest, A steps right foot forward into walk-stride standing position, keeping control of B's right hand with grip on B's fingers and lock on B's arm. A keeps left arm bent with elbow in close to side, and prevents B from reaching inside or over his arm to lock his hands around A's waist.

5. *Swing Hips Forward:* A swings hips forward away from B as he slips B's right hand up to armpit and drops left shoulder under B's chest.

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6. **Turn:** A releases B's hand and reaches for mat with right hand as he swings left arm backward and upward to block B if he tries to move behind.

7. **Pivot Away:** A pivots on right hand and moves legs away from B as he throws left arm around B's back to start crawfish in case B tries to spin behind. A sets right knee out and down on mat to maintain tripod position with right hand and left foot.

8. **Push:** If B makes no move to spin behind, A moves left hand to B's right thigh and pushes B away to neutral position.

9. **Neutral:** B keeps distance by pushing on A's shoulders with both hands. A maintains good base and keeps eyes on B's hips. A is ready to catch B in crawfish with either arm if B attempts to spin behind.

CROSS-FACE AGAINST A SINGLE LEG HOLD (p. 16)

1. **Start:** A is standing and B is on knees facing A. B locks arms around A's right leg, with head to outside of leg.

2. **Block:** A drops to mat on hands and knees at right side of B. A's right hand is on mat under B's face and

left hand is hooked over B's right ankle with arm alongside B's hip. A sets back on legs to get chest under B's side as low as possible.

3. **Leverage:** A extends legs backward, dropping stomach toward mat, working right arm across under B's face, and keeping left hand hooked on B's right ankle. B releases A's leg with left hand and puts it on mat to maintain balance.

4. **Step Over Leg:** Keeping leverage across B's face, A continues to move right leg away from B. As B's right hand starts to slide off A's right leg, A steps left heel over B's right ankle and draws ankle to him. This swings B's upper body away from A, causing B's right hand to slip off A's leg as A moves around behind him.

5. **Lock Leg:** A locks left ankle under B's right ankle by sitting back on leg. A slides left arm around B's upper right leg, placing left hand just above B's right knee as he places left shoulder under B's right buttock.

6. **Drive Forward:** A pushes with left shoulder as he pulls B's leg into him with left hand and raises up on B's right ankle with left heel. This leverage on B's right leg forces B forward and down to stomach on mat.

Foul Shooting, Leavitt Style

It doesn't matter what kind of style you use, as long as you make them. However, if you can't make a good percentage with your own style, you should definitely switch to the two-handed underhand method—the most consistent style of free shooting extant. Once you've achieved fair success with a method, stick with it.

1. Relation, concentration, confidence, and follow through. To relax, bounce the ball, inhale and exhale.

2. Practice with a properly inflated ball. Perhaps the best time to practice is after running drills, when slightly fatigued—thus simulating game conditions. Don't practice at end of sessions; players may catch cold.

3. Before taking a free throw, look back and check your defense.

4. Take your time and get set on the line.

5. **Stance for two-handed underhand throw:** Feet should be 18" apart, parallel to each other or with one foot in advance. Take your most comfortable position, with trunk and head erect, eyes on front rim, and hands on side of ball. Hold ball just below belt with arms slightly bent. Hold ball loosely with fingertips, thumbs pointing directly at basket. Now's the time to bounce ball a few times to relax shoulders and arms.

6. **Use a 3-count rhythmical motion:** At count of one, swing ball upward and outward, chest high, and aim as if ball were a rifle. At count of two, return to starting position and flex knees. At count of three, straighten knees and swing ball up, out, and over front rim with a wrist flip which gives ball a natural spin.

7. **Follow through:** Keeping eyes on rim, let arms follow through so that palms face the backboard. Literally reach for the basket. Eliminate all jerkiness and hesitation.

8. Don't be any of these types of foul shooters:

(a) Swan diver—no proper follow through.

(b) Squat kid—back bent over too far.

(c) Backboard buster—hitting board instead of making shot cleanly.

(d) Dreamer—no concentration.

(e) Worry type—lack of confidence.

(f) Hopalong Cassidy—fancy jump.

9. Shooting contests—graphs and prizes. Challenge other schools via mail.

10. Take 10 free throws in succession—have teammates holler and shout to teach thrower to be cool under pressure.

11. Practice doesn't make perfect if you practice the wrong thing. Shoot your throws carefully. You should make at least 70% of them.

12. Always emphasize correct form; never be careless about this.

13. **Summing up:** Relax, concentrate, have confidence, emphasize correct form, follow through, practice constantly, employ the right kind of practice, and once you develop a good style, stick to it.

Bunny Leavitt, perhaps the greatest foul shooter of all time, delivered this teaching plan at Clair Bee's Eastern Coaching School last summer. If you'd like him to teach your squad—no charge at all—address him c/o Converse Rubber Co., Malden, Mass.

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Brown		14		14		Brown
Jacks		15		15		Jacks
King		16		16		King
Michaels		17		17		Michaels
Benn		18		18		Benn
Lach		19		19		Lach
Doe		10		10		Doe
Smith		11		11		Smith
Johns		12		12		Johns
Peters		13		13		Peters
Brown		14		14		Brown
Jacks		15		15		Jacks
King		16		16		King
Michaels		17		17		Michaels
Benn		18		18		Benn
Lach		19		19		Lach
REBOUNDS	HOME GOAL	NO		NO	REBOUNDS	VISITORS GOAL
10	1111	10		10	111	
11	1	11		11	11	
12	111	12		12	1	
13	1	13		13		
14	11	14		14	1111	
15	111	15		15	1111	
16		16		16		
17		17		17		
18		18		18		
19		19		19		

Basketball Scouting Complete

By PRESS MARAVICH and JAMES C. STEEL

THE role of the basketball scout cannot be minimized. It's only through his keen and thorough reconnaissance that the coach can draw up a sound battle plan. A good scouting report enables the coach to:

1. Defense the opponents' attack.
2. Sift through the opponents' defense.
3. Anticipate surprise moves, minimizing the possibilities of a blitz.
4. Reveal the opposing coach's pattern of thinking.
5. Provide his players with specific information on the strengths and weaknesses of each member of the opposing club.

Integrity must be the byword of the scout. He cannot afford to indulge in guesswork or fabrication. These only destroy his reliability and usefulness.

He must be concerned only with the facts. And to obtain these facts, he must be calm, thorough, objective, and have a mind that can embrace both the game and its personalities at the same time.

He must know *what* to look for and *why* it's important. And, just as essential, he must know the proper way of recording the information and applying it for coaching purposes.

PRE-GAME PROCEDURES

No basketball schedule is complete without a complementary "scouting schedule." The coach is responsible for this schedule. Every opponent should be scouted at least once, regardless of its strength.

The coach should arrange the schedule in a way that puts the best scout on the more important opponents. Every possible source of information on the opponents' schedule should be thoroughly checked. Newspapers, magazines, and of course the opponents themselves provide the best means of obtaining this data.

The coach should attempt to arrange the opponents in groups, sections, and districts, correlating the dates and schools to enable the scout to cover the most games with the least amount of traveling time and effort—thus reducing expenses.

The coach should avoid covering two opponents on the same evening. This isn't economical scouting. On the contrary, it only creates chaos.

A meeting with the scout is advisable prior to each trip. In this way, the coach's special interests and desires can be more clearly understood, paving the way for a specific outline of what is wanted.

Arrangements for tickets should always be made far in advance through the school's athletic director, coach, or business manager. Correspondence or

telephone is usually adequate, but not always reliable. Remember, any failure to reserve the tickets may bring tragic results.

Hotel accommodations and the mode of travel are important items to consider. You can never tell when a supposedly run-of-the-mill game may turn out to be a big one, capable of causing a temporary housing shortage. It's always advisable therefore to make such arrangements well in advance.

It's advantageous to arrive at least one day ahead of the scheduled game. If this is impossible, the scout should show up at least a few hours before the opening whistle. This will give him time to dig up the necessary pregame information through friends, alumni, or persons interested in the school he's working for.

When taking an extended trip, the scout has a few preliminary steps to take before actually observing the opponents' play. If staying at a hotel, it's desirable to know whether a radio is available in his room. Most hotels offer such comforts. In some of the smaller hotels, however, it may be necessary to rent one for a small fee.

Radio information can be extremely valuable. Most sportscasters will either talk about the game to be played or interview several of the players and/or the coach. Their opponents may likewise be interviewed.

A lot of nuggets may be gleaned

from such interviews. The writer remembers one season when three Kentucky players were interviewed at halftime. The sportcaster asked many leading questions about the Wildcats' offense and defense, particularly as compared to their opponents, Bowling Green. The players also discussed their particular playmaker, best set shot, best defensive player, and the team in general.

The scout can further add to his knowledge by purchasing the local papers to see what they have to say about the game. The sports pages will usually feature pictures of the leading scorer or the best defensive player or perhaps just the starting five.

This is helpful in identifying the players upon reaching the court. The time thus saved can be used in talking to the nearby spectators. The scout can ask them leading questions about the ball players, team, and coach. He can continue this at halftime and after the game. Information of the opponents' offense, defense, caliber of the opposition, and the best shooters can be gathered very early.

The scout should make every effort to seat himself in the most advantageous spot in the gym. The best location is usually at midcourt, high enough to get a good perspective of the entire court. Besides affording the scout a good view of the action, such a vantage ground enables him to record his data without distractions or obstructions.

Upon completing his preliminaries, the scout is now more or less ready to observe the opponents in action. He knows the starting five and something about the opponents' offense, defense, best shooters, playmakers, and the caliber of the opposition—past and present.

While all of these steps may not appear important, in reality they're vital components of successful scouting.

THE SCOUTING CHART

The charting of the opponents' shots is one of the basic duties of the scout. It isn't enough to merely spot the shots on the court—to show that Smith High took 70 shots from a certain area and made 30% of them. This is important, of course. But it's just as important to know what kind of shots the opponents are taking.

The coach who knows that Smith did a lot of one-hand shooting, set shooting, or jump shooting, plus taking a variety of other shots, will be in better position to plan his defense.

The shots must be analyzed from the standpoint of defense. Perhaps the defense encountered prevented them from taking certain types of shots. Which means that Smith may not take the same shots in subsequent games.

To be specific: Let's say that Jack Doe has a great hook or jump shot. But the defense is such that he can't get the shot away. So he contents himself with set shooting from the outside.

An inexperienced scout can draw the wrong conclusion from this. He

can report that Jack Doe doesn't hook or jump, but merely set shoots. This can result in disaster. The coach may set up a defense to stop Doe's set shooting, only to have Doe ruin it by resorting to his favorite hook and jump shots.

The accompanying shot chart was arrived at through much experimentation and refinement. It should prove helpful in determining how certain players score, who does the assisting, and who does the rebounding. These factors are important from the standpoint of defensive planning. Nearly every player has a favorite spot from which he's particularly dangerous, and the chart will help determine this.

The chart is made up of four separate sheets, one for each quarter. An extra chart is used for an overtime period. If more than one scout is being employed, each may work his own chart—recording one special type of information. Later on, a final chart can be drawn up, collating all the information.

Each chart is a half-court affair which includes the foul circle. The court is divided into six zones, numbered evenly on the right and oddly on the left. Three columns appear on each side of the diagram—labeled "Zone," "No.," and "Assists."

The zone number is placed in the column marked "Zone." The "Assist" column records the number of assists a player makes. This is done by a single mark (1) each time he makes an assist. This number is recorded in the column alongside the zone in which it was made.

In the lower corners of the sheet are columns for recording the rebounds—one for those under the offensive board and the other for those under the defensive board.

The key to the shot chart appears in the illustration. A set shot or push shot is denoted by an "S"; a lay-up by an "L", etc. Let's say player number 12 takes a one-hand jump shot. The shot is recorded on the spot from

which it was taken, being put down as 121J (player's number followed by type of shot). If the shot is made, the as 121J (player's number followed by stays as is.

The chart is devised so that one or two people can do all the work. However, this doesn't mean that the scout must make full use of the chart. He may employ whatever part he believes will be most beneficial to him. Or he may have several assistants working with him, each using his own chart for a specific job.

In addition to the shot chart, a "Recording Chart" is used for compiling all of the different shots taken in the game. As illustrated, the players' names and numbers are printed down the left hand side, with all the different types of shots listed across the top.

Under each type of shot are spaces enabling the scout to list the number of such shots taken, how many were missed, and the player's percentage. In this way, the scout can compile the exact percentage for every type of shot and, in the last column, glean the total percentage for all shots taken.

INDIVIDUAL AND TEAM OFFENSE

Almost every team employs a distinctive type of offense. Perhaps the most vital generalization is whether it's a fast-breaking offense or a deliberate type stressing possession. The scout should determine whether the shots are taken at random out of a free-lance pattern or after a series of moves from continuities, interchanges, give-and-go maneuvers, or other types of specific patterns.

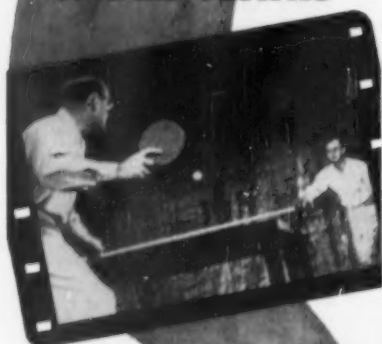
More often than not, a team's offense will be determined by the type of personnel available. The scout should concentrate upon the pattern of their maneuvering.

Do they stay back and shoot the long ones; and if so do they have the height underneath the basket to con-

PLAYER NUMBER OF PLAYS	SET SHOT			LAY UP SHOT			ONE HAND SHOT			TIP IN			BOTH HAND			TWO HAND OVERHEAD			TWO HAND JUMP			ONE HAND JUMP			UNDER HAND			TOTAL PERCENT ALL SHOTS					
	M	M	P	M	M	P	M	M	P	M	M	P	M	M	P	M	M	P	M	M	P	M	M	P	M	M	P						
Doe 10	4	2	50%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2.50%					
Smith 11	2	2	100%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2.50%					
Johns 12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	4.60%					
Peters 13	1	0	0%	0	0	0	1	0	0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.0%					
Brown 14	1	0	0%	0	0	0	1	1	100%	0	0	0	0	0	0	2	1	50%	0	0	0	0	0	0	0	0	0	4	2.50%				
Jacks 15	0	0	0	1	1	100%	0	0	0	2	1	50%	2	2	100%	0	0	0	0	0	0	0	0	0	0	0	1	0.0%	6	4.60%			
King 16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	50%	0	0	0	2	1.50%
Michaels 17	DID NOT PLAY																																
Bonn 18																																	
Lach 19																																	

Recording Chart for compiling all the various shots taken during game.

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trol the rebounds? Or do they rarely use the set shot but prefer to work the ball in, taking most of their shots from underneath? The shot chart can determine this to a great extent.

The scout must be always on the alert to note whether the opponent recognizes the breaks of the game and then capitalizes on them. This is a good tip-off on the potentiality of a team.

Every attempt must be made to chart the play patterns and the success with which they meet. This must include not only those stemming from weaves or continuities, but jump-ball and out-of-bounds plays. Do they set up a play with every jump ball? Do they use any screens or blocks on jump-ball plays? If not, how do they set up defensively?

When a team employs a single or double-pivot attack, you'll want to know whether the boys are put in there on the pivot because they're good hook shooters or strictly for height advantage and to pass off to teammates attempting to screen around them.

Careful attention must be given to the manner in which they handle the ball. Are they clever and sure-handed passers? How fast do they move? Is the whole team handling the ball or are just a few bearing the brunt of the passwork? Does a particular playmaker set up all the shooting?

Another thing to look for is the all-important factor of adaptability. Can they adjust their offense to meet any unusual defense or do they persist in one style of offense regardless of the defense?

The scout should always try to determine if a team is using a fast break from its particular type of defense. Keep a tab on the approximate number of points the fast break was good for. Follow closely the consistency with which it is used.

Are the players able to run, pass, and catch the ball at full speed? Do the outside men break in straight lanes or do they criss-cross frequently? Where is the ball being passed—to the middle man or to the outlet men on the sides? Ask yourself if the middle man is clever with his passes and shots. Does he throw many passes away while running and dribbling at full speed?

The difference between a good fast-breaking club and a mediocre one lies in their ability to run, pass, and catch at full speed. If the fast break doesn't succeed, do the players come to a standstill and play possession ball?

A fast-breaking club must be in tip-top physical condition. If a team continually breaks fast in the first quarter and slows down in the second period, is it because the players were tired physically or because the opponents switched to another defense to slow it down? Watch to see if the fast break is consistent with the team's pattern of play.

How well does the future opponent screen or block on particular play patterns? Is it a fast-cutting team or do just a few players do most of the cut-

ting from particular set plays? Who is the chief playmaker? Does he give any signals either by shouting, whistling, dribbling, hand raising, or any other way that may be easily detected? Does the team use a lot of screens or do they employ a continuity and move into them?

Once they set up their offense and take their shots, are they out of position or in position for rebounds? When losing possession by faulty ball-handling, are they able to keep the opponents from fast breaking?

The intelligence with which they call their time-outs and how they utilize them should also be determined. Any misuse of so important an item should be immediately detected and recorded.

We now come to the little black line where most games are won or lost—the foul line. Our first consideration is how often do they foul? Compare the number of fouls committed by the team scouted and their opponents. Record carefully the type of fouls such as hacking, pushing, over-aggressiveness, and whether the fouls are committed in the backcourt or the front-court.

Watch carefully all foul shots taken, the pre-game shots as well as the game throws. Compare the pre-game foul shooting taken without pressure, with that taken during the game with the pressure on. How does the team as a whole take its shots? Are they all one-hand shooters, underhand shooters, or do the players vary? How accurate are they?

INCLUDES TEAM ROSTER

A good scouting report will always include a roster of the entire team, including every member of the bench, especially those substituted during the game. Every piece of information on each and every member of the squad is important and must be kept in mind. You never know when an unknown sub may come along and snatch a victory from under your nose. Advance notice of all personnel is insurance against such a tragedy.

Be alert, too, to study and inquire about the team's morale. Be quick to notice any signs of friction among the players and prepare to capitalize on it. Try to uncover the player-coach relationship from every possible angle.

Prepare a list of the team's weak and strong points. Single out the playmaker or playmakers. Carefully study their eccentricities and methods. For here we have the key to a team's success or failure.

Search keenly for the playmaker's weakness, whether of ability or temperament. Detect any consistency in his passing habits. If such a consistency exists, the solution to stopping him is greatly simplified.

Observe if he's capable of passing with both hands or is restricted to one. Place a quality tag on his passes—using cleverness, shiftiness, facial expression, possible tip-offs (cross-court or bounce pass), and the type (soft or hard) as your criteria.



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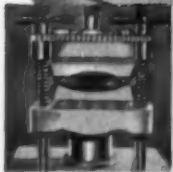
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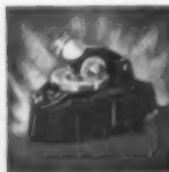
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The type of defense used by a team cannot be detected at a glance. Though it may appear to be a simple man-to-man, zone, or some other type, closer study will reveal that it's a man-to-man switch, a complicated zone such as a 1-1-3 or 1-2-2, a man-to-man zone, or some other special sort of defense.

INDIVIDUAL AND TEAM DEFENSE

The scout's first aim is determine the overall pattern. This can be narrowed down, as a rule, to a man-to-man or a zone with its numerous and peculiar variations. The first question to answer is: Does the team move into its defensive set-up rapidly or does it move back slowly?

If it's a zone, determine whether or not they hustle back. Are there any strong points that make the zone effective? Do all the players move in unison? Do they sag in the middle, covering the foul lane and gambling on teams set-shooting against them? Are they ready to fast break from their zone?

What about their rebound strength? Who are the key horses on the boards? Can they be blocked out of position?

It's essential to classify the particular type of zone and then list in chronological order its advantages and disadvantages (as operated by the scouted team). Is the height and speed of the team being used to best advantage?

If they use a man-to-man defense, do they pick up the nearest man, calling out the number of the opponents as they do so? Or do they seek out a particular player regardless of his location at the moment, thereby sacrificing valuable time and steps and leaving a vulnerable spot in the defense?

Do they play a strict man-to-man without switching? Or do they play a loose man-to-man? A tight man-to-man? Are they aggressive or passive?

At this point, the scout must carefully analyze the individual player and his part in the team pattern. In a man-to-man defense, perhaps the most costly error a player can make is to take his eyes off his man. If the guard does this, the scout must delve into it a little deeper. He must discern how often the player does this and to what degree it is committed. This is particularly important if your club has a fast cutter who can exploit this weakness.

Many defensive men employ split-vision in watching the ball and the attacker at the same time, and will take a calculated risk in leaving their men to swipe at a pass or tie up a pass received. Some men can do this quite effectively. But, as a rule, it is dangerous. The best defensive men concentrate fully on either the ball or the man.

The scout must also determine whether the guard can move right and left with equal dexterity. How fast are his reactions? Is he alert and intelligent? Precaution: When appraising the guard, make sure to keep the caliber of the opposition constantly in mind. The smart defensive man

will play a poor attacker differently than he would a stronger, offensive opponent.

Does the defensive man assume an upright position while guarding, thereby making it easy for an opponent to get a step on him? Or is he the crouching pliable type who's difficult to get around? Does he wave his arms continually? Does he chatter his opponent to distraction? Does he prefer to guard a left-handed or a right-handed player (if this is possible to determine)?

Is he capable of switching or does he get lost on a well-executed play? How does he break through on screens? Is he easily led into screen traps or deceived on give-and-go plays? Or does he sense such maneuvers?

If the team is playing zone defense, is the player suited for such a system? Does he over and under play his zone? Can he be easily fainted out of his zone position? Does he give his man room? If so, how much? Would it be possible for a set-shot artist to "kill" him?

Does the defensive player take advantage of the various spots on the floor when guarding a man? Does he try to keep his man from breaking into the middle of the foul line? Does he play in front of him when underneath the basket? Does the guard slide or cross his feet when moving, and once out of position how fast does he recover? Does he possess any effective tricks? Does he enjoy playing defense as much as offense?

The smart scout will also keep an eye out for injuries. Will the injury be severe enough to keep the player out of your game? Or will it merely incapacitate the player, permitting him to play but at reduced efficiency? Injuries are the breaks of the game and there's nothing unethical about exploiting a slowed-up opponent or a man who's trying to play with a handicapped foot, arm, or hip.

MATCHING THE PLAYERS

In his analysis during and after the game, the scout should mentally match the opposing players with those of his own club. He should attempt to visualize the opponents playing his own team. He should size up the strengths and weaknesses of both teams and match up the players—to the best advantage of his own club. This must also include a comparison of reserve strength.

Quickly ascertain your advantage (or disadvantage) in height, speed, and aggressiveness. Weight is also a factor of importance, particularly when the opponents have a good pivot man who might be discouraged from setting up underneath.

ASSOCIATED FACTORS

The scout must also consider the influence of crowds, players, and coaches in causing confusion and up-
(Continued on page 40)

Get faster, safer batting practice with

Power Pitcher

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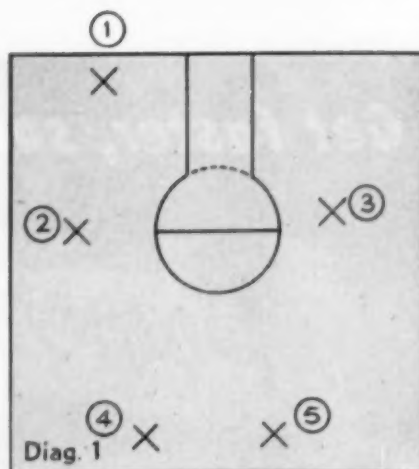
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A Hybrid Defense

Combining a Press

and 3-2 Zone



SEVERAL years ago while coaching the freshmen at City College, we ran into a peculiar situation with our player personnel. Out of a squad of 14 players, only two big men were available—one at 6-7 and the other at 6-6. A third player stood at 6-4, and the remaining players on the squad ranged from 5-8 to 6-1.

The two big men were good athletes. They could run, play pivot, or move on the outside. The 6-4 lad, however, was considerably less gifted. He lacked the taller boys' speed, agility, and all-around ability. At best, he'd just be able to serve as a part-time substitute for them.

The little men were fast, tough, and fair shooters. However, none was particularly outstanding, so that they could be easily interchangeable during the course of a game.

In short, our situation was analogous to that confronting many high school and small college coaches.

Now, the basic aim of freshman coaching is the development of future varsity timber. To fulfill this objective, we serve our yearlings an intensive course in fundamentals plus a leavening of competition against other freshmen quintets.

Since the organization of individual and team tactics is an essential phase of their development, we proceeded to adapt our personnel to the situation at hand.

First, we organized our team lineup. Our thinking ran like this: If we went with four little men and one big man, we would be surrendering too much height and strength under both boards.

Most of our opponents had two or three good-sized players; and if we attempted to use four little men with an interchanging big man, we could be sure that one of our little men would be taken into the pivot where he'd encounter difficulty defending his taller man and "boxing" him out on the rebound. An extremely heavy rebounding load would thus be

placed on the shoulders of the lone big man.

On the other hand, if we employed three little men and two good big men, we'd still be susceptible to headaches. If one of our big men fouled out, we'd wind up in the same boat, namely, with four little men and one big man.

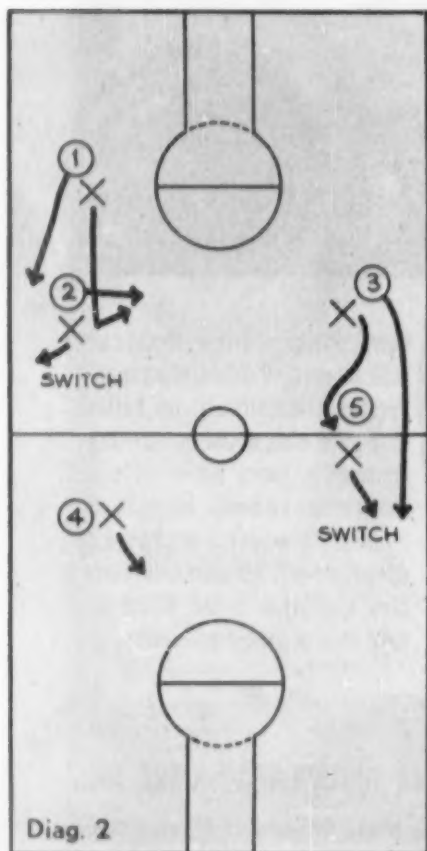
However, the array of three small men and two big men would at least assure us of having our best team, offensively and defensively, in the game for the longest possible time—which might be long enough to enable us to win. Therefore, we determined to go with two big and three little men in our basic lineup.

In organizing our offense and defense, we had to take cognizance of two key problems. If we were to use a man-to-man defense—and the opposing team went with three big men up front—we'd still have one of our little men playing a much taller opponent.

To meet such a situation, a zone defense could be employed, possibly a 3-up and 2-back zone. Whereupon we would run into the second key problem.

With a 3-2 zone in which our big men played under the defensive board and with an offensive which utilized our big men under the offensive board, our big boys would have to do a tremendous amount of running. The change-over from offense to defense and vice versa would necessitate endline-to-endline dashes every time the ball changed hands.

Such extra running by the big men could very well spell the differ-



By **BOBBY SAND**

Basketball Scout, Rochester Royals (N.B.A.)

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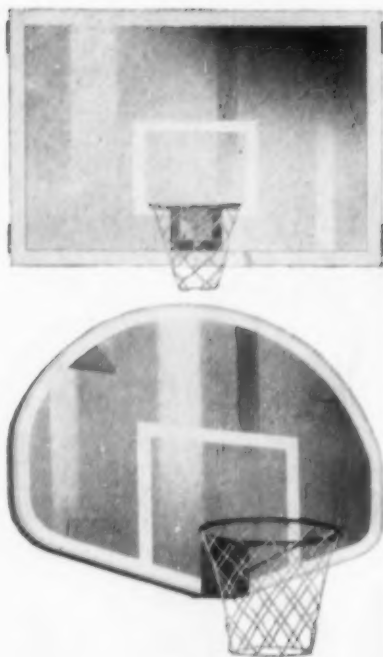
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in tight ball games. Fatigue, setting in earlier than usual, might reduce their effectiveness and cause them to foul—perhaps right out of the game.

Many coaches faced with such a problem would probably concentrate on special offensive tactics. At City College, however, we decided to concentrate on special defensive patterns that would exploit the speed and interchangeability of our little men.

Thus was born the "hybrid defense"—a system of defensive patterns that incorporated a press in our offensive forecourt and a 3-2 zone in our defensive backcourt.

Unlike the usual all-court press in which each offensive player is closely guarded in every area of the court, our press pattern was employed whenever we scored or lost possession after a scoring attempt in the offensive court.

As shown in **Diag. 1**, our three little men immediately picked up the farthest three offensive players, including the ball-handler, while the two big men moved into a loose zone near the midcourt line.

The front men played a pressing defense, switching whenever the offensive opponents crossed over (the rear defender always calling the switch) and employing harassing tactics at all costs. (See **Diag. 2**.)

If a switch was missed up front or at the side, the defensive man came back down the center of the court until he could pick up the nearest uncovered offensive player. As a result, he was in position to keep our middle plugged against any sudden offensive dribbling through that area.

On occasion, too, the loose defensive man—clogging the middle and knowing where the ball was at all times—could intercept a pass thrown in or near the center of the defensive area.

The big men were instructed to play the two offensive opponents who came downcourt first and were closest to the midcourt stripe. If the two offensive men moved across the midcourt stripe while their three teammates were being pressed up front, the two rear defenders could move up and play slightly in front and ahead of their opponents, ready to intercept any possible passes to their area. However, the rear defenders had a further responsibility to guard against long downcourt forward passes.

In the event that more than two offensive players broke downcourt, the corresponding defenders went with them.

Where an offensive player, espe-

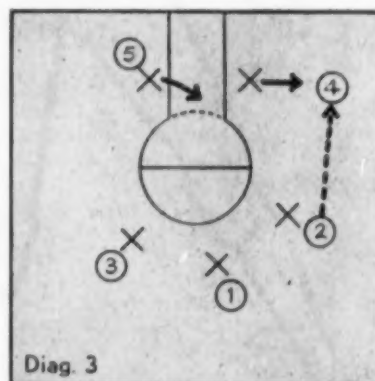
cially the man with the ball, eluded his tightly defending guard and began his move toward scoring territory, one of the rear defenders became responsible for him. The rear defender could switch outright or play a defensive one-against-two position until assistance arrived.

To increase the effectiveness of the defense, all players were drilled in the techniques of switching, the proper defending positions against two-on-one and three-on-two attack situations, and in the correct use of peripheral vision whereby the defenders could play their opponents and still know the whereabouts of the ball at all times.

Once the offense succeeded in moving the ball over the midcourt stripe into scoring territory, the defense retreated simultaneously with them, and moved into 3 up—2 back zone, similar to the setup employed by Ray Meyer at DePaul University, the late George Keogan at Notre Dame, and on occasion by the Harlem Globetrotters.

The front three men played a switching defense and guarded closely, while the rear two defenders covered the two offensive men closest to the basket in a loose type of zone.

If the offense overloaded to one side, one of the rear men could move over to help out—with the second rear defensive player moving over to guard the middle of the scoring territory underneath the basket (**Diag. 3**).



Diag. 3

Where two offensive players crossed over, for example—deep in a corner, involving one of the front defenders and a rear defensive player, the two defenders switched so that the big man, usually a rear defender, could maintain his rear position relatively closer to the defensive backboard.

This may be studied in **Diag. 4**. X-2 and X-3 play their men closely, but are ready to switch to an opponent coming out of the corner. X-4

(Continued on page 58)

A Vital Message for All Your Students

- The menace of alcoholic beverages is clearly and dramatically capsuled in the attractive poster on the next two pages. In it, one of the nation's most distinguished basketball coaches, Mr. Forrest C. (Phog) Allen, lays down the golden rule of health and training, and that is: *Never drink alcohol in any form*. He sharply underscores the dangers inherent in such beverages, particularly for budding athletes, and why it's so essential to stay away from them.

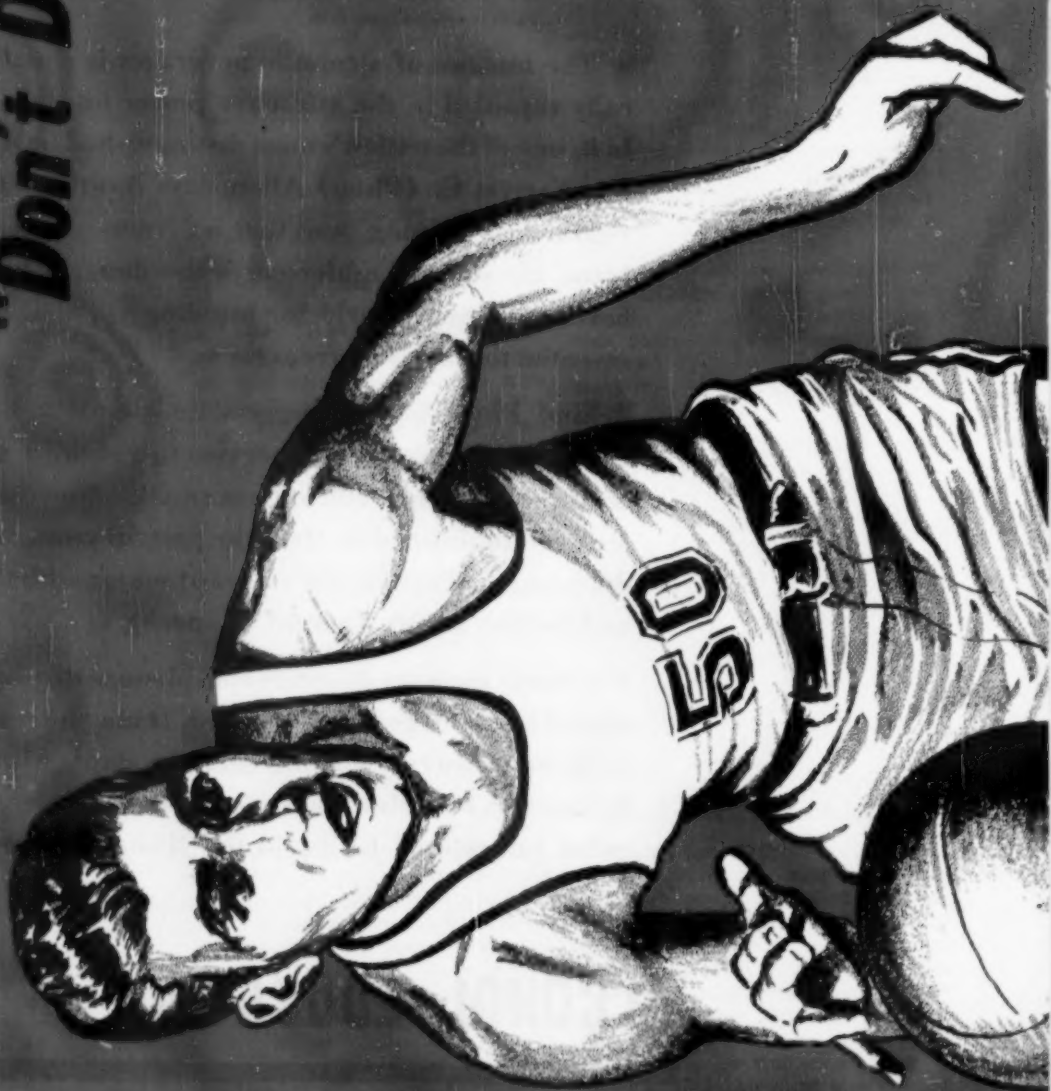
Behind Phog Allen's nuggets lie almost a half century of coaching and counseling service to youth. A fabulously successful coach since 1906, he is equally famed as a trainer and athletic administrator. Over the past 50 years, he has prepared thousands of boys for the rigors of major athletic competition; and he thus knows whereof he speaks.

His timely message deserves conspicuous display on every high school and college bulletin board. It may be removed for such purpose by merely turning back the staple with a knife or letter opener. For additional copies of this poster, check the "Alcohol Education" listing in the Master Coupon on Page 63.

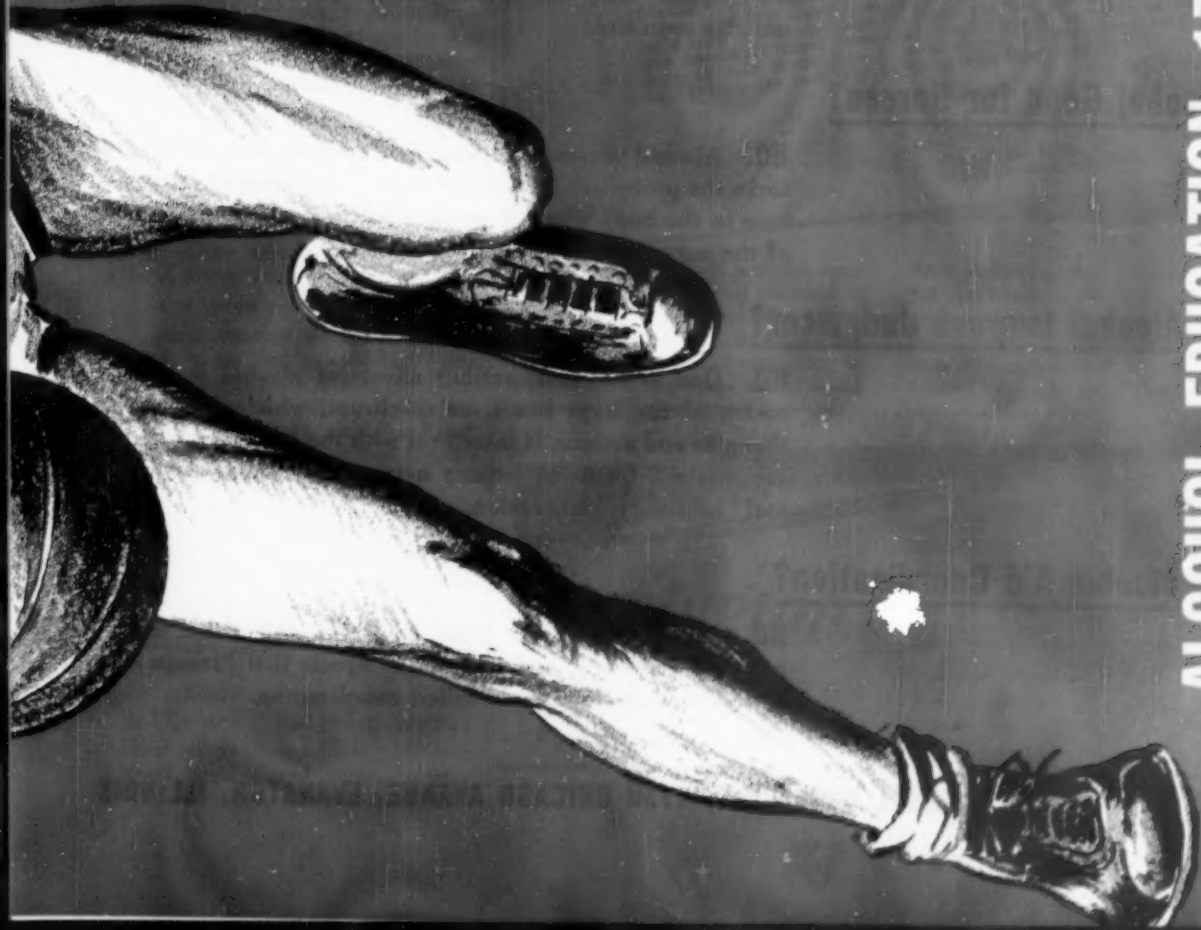
ALCOHOL EDUCATION

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By FORREST C. ALLEN
Basketball Coach, U. of Kansas



"If there's one training rule I've learned in all my years of coaching, it's: Stay away from all forms of alcohol. Alcohol ruins that fine coordination and sense of judgment, and robs the athlete of his will power. And when an athlete cannot think quickly and act quickly, he cannot possibly produce top performance. That's why every coach in every sport forbids his boys to touch this destroyer of possible champions. It takes intestinal fortitude to reach championship heights. As an athlete striving for perfection, you must say **NO** to all alcoholic beverages. They're depressants that only help defeat you in your great quest."

Sam Cane

ALCOHOL EDUCATION, 1730 Chicago Ave., Evanston, Illinois

Questions and Answers on ALCOHOL

Is Alcohol a Stimulant?

NO. It is a narcotic, and as such it suppresses or lessens the activity of living matter. By lessening the caution it gives a temporary sense of well-being. But over a period of time it acts as a depressant to both mind and body.

Does Alcohol Increase Endurance?

NO. Alcohol saps energy and greatly increases fatigue. The reason for this is that alcohol slows down the removal of lactic acid (the acid formed by sugar in the body every time we exercise) and unless this acid is quickly removed the muscles soon tire.

Is Alcohol Good for Nerves?

NO. Alcohol seriously upsets the nervous system. It disturbs the protective lipoids and dehydrates some of the moisture in the body which is so essential to proper functioning of the nerves.

Does Alcohol Improve Judgment?

NO. One of the most serious effects of alcohol is on the cortex of the large brain, or cerebrum, which directs our thoughts and actions. It interferes with the "messages" which are received from the sensory nerves and also reduces normal "inhibition" or caution.

Does Alcohol Aid Coordination?

NO. It interferes with both voluntary and reflex movements of the body, and completely upsets that "teamwork" between mind and muscle called coordination.

Defensive Principles

(Continued from page 9)

2. Cut down the percentage of shots.

We tell our boys to be aggressive at all times. It's hard, tough work, but a lot of boys like to play that kind of ball. It's a good feeling to have one of your boys come up and ask to be assigned to the outstanding player on the opposing team.

Several years ago, we had such a boy. He wasn't interested in how many points he scored, but he liked to take an opponent with a 20-point average and whittle him down to seven or eight. Before he left the dressing room, he'd come up and ask, "Have I got Smith Saturday night?"—Smith being the star of the opposing team.

If you can force a team to take take hurried, off-balance, inaccurate shots, you'll destroy their shooting percentage. And that's the difference between aggressive defense and defense that permits a team to get good shots. When a coach comes up after a game and says: "We couldn't hit tonight," maybe there was a reason.

3. Cut down everything under 18 feet.

I like to put this in, since it fits in well with the philosophy of collapsing or floating defenses. It certainly is in their favor. If you'll draw a circle 18 feet out from the basket and attempt to cut down everything in that area, getting all the rebounds, you'll have a foolproof defense. I realize this is impossible, but the fact still remains—don't give them a shot close in to the basket!

If you can imprint this upon the minds of the boys, they will get the idea and work toward this goal.

4. Cut down the second shots.

A good defense shouldn't permit a team to get the second and third shots at the basket. While it's often difficult to get the rebound, the first thing to do after a shot has been taken is to see that your man doesn't get the rebound.

You should block out your man and then, after you have him out of play, go for the rebound yourself. If you permit a second and possibly a third shot, one of these is apt to fall in. A good tough rebounding team won't permit these additional shots after the initial attempt has been taken.

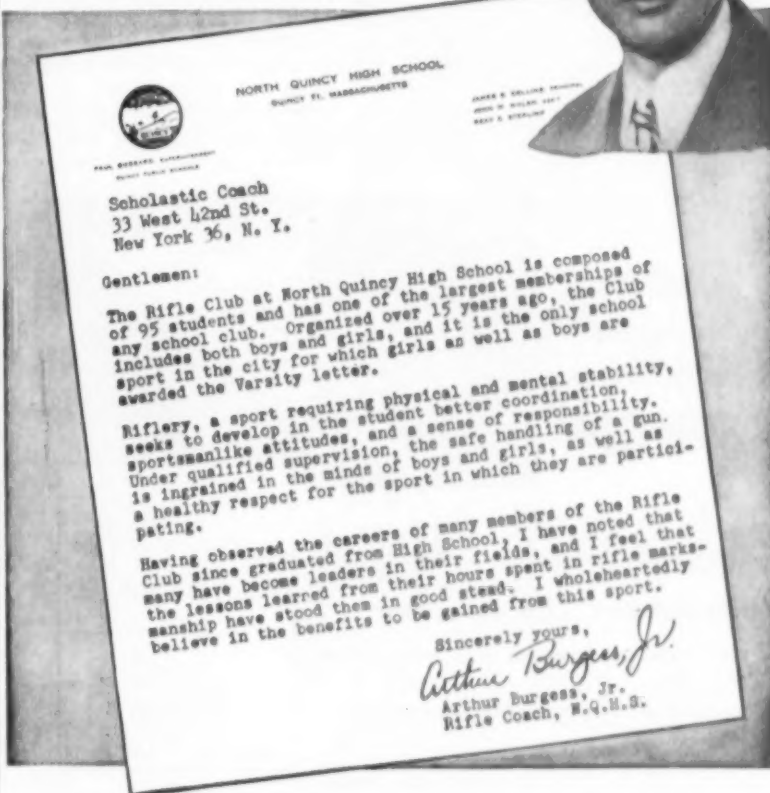
5. Cut down the cheap baskets.

How many times have you seen a good, well-played game broken-up by a cheap interception, with

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the boy going all the way and scoring? Ever have an opponent on your own free-throw line slap a jump ball over the head of your defensive players and go all the way in to score? How many times have you had a pass-in under your defensive basket intercepted and laid in for an easy basket? How many times have you seen a ball fall aimlessly to the floor and have it picked up by an opponent and thrown up for an easy basket? How many times have you seen an opponent get an easy basket on a rebound after a missed free throw?

These are just examples of cheap baskets. Some are due to carelessness, some are due to bad judgment, but in a game between teams of equal ability a cheap basket at a critical

time often proves the deciding factor.

6. "Point" the ball on all long shots.

As the ball is maneuvered on the outside, the defensive man on the ball should always play tight. Two of the cardinal principles are to cut down on the number of shots and the good shots. If you'll allow good long shooters to get set unmolested, they'll ruin you. Therefore, the man with the ball should always be "pointed." This is true even in floating defenses. In strict tight man-to-man defensive play, this should always be true.

7. Prevent the ball from going to the pivot.

I believe that most teams feel exactly as we do—that the ball

should never be allowed to go in to the pivot man. If you let the opponents do this, they can set their screens without worrying about ball-handling. We permit the ball to go to the side of the floor, but always try to prevent it from going to the pivot man.

As soon as the pivot man has the ball, you have a dangerous offensive center. He can take a hook shot, jump shot, or jump flip shot. He can fake on one side and go to the other. He can pass to a cutting teammate that has been freed by a screen.

The ball is in extremely dangerous position when it is held by a man in the pivot. The greatest percentage of attempts at the basket are made from this position.

My objective has been to give you the benefits of our experience down through the years. On those long nights that are sure to come during the season, it might be well to check on these seven cardinal principles and see if any of them are being abused. Maybe somewhere along the way you may find your difficulty.

Even if your team is going well, you can still check. The star of your team offensively may not be a star at all. His defensive inability may be losing ball games.

Bear this in mind; I repeat it to my boys thousands of times every year—your defense will save you on the nights that your offense isn't working.

A 3-2 Pattern

(Continued from page 11)

(1) then move to set up a double screen for the remaining outside man (3).

As 3 cuts off the pair of screeners, 1, being nearer the sideline, delays, then breaks off 2's back. In this way, if the double screen isn't effective for 3, it's possible to free the second cutter for the drive-in shot.

A guard-around play from the 3-out, 2-in setup is shown in **Diag. 6**. In this pattern, the ball is again brought up the side and passed into the corner man moving out. But this time 2 drives around 4 for a hand-off, if clear.

As 4 hands off, he turns in the direction of the cutter and breaks for the hoop. Very often he's able to lose his man (switching to pick up the cutter) and is open for the pass and shot.

As 2 breaks toward the corner man, the middle man (1) screens for 3. Then, as 2 starts his drive from the hand-off, he may be able to find 3 in good position cutting through

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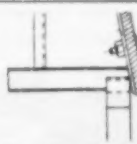
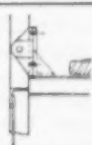
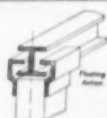
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the lane. If the area is clogged by 2 and 4, then 3 stays out. No. 5 crashes the board in either case after the cutter is through.

In each of the sequences illustrated, the pattern is indicated to all five players by the action and position of one or more players.

In **Diag. 1**, the middle man tells his players he wants the give-and-go. That failing, he wants the corner man utilized as a cutter or post.

In **Diag. 2**, the middle man indicates that he wants a weave—three-man weave if he screens only for the outside man; five-man weave if he goes deep to the corner.

In **Diag. 3**, he shows he wants a screen for the opposite outside man; and that failing, the post is again to be utilized for a hand-off to an outside driver.

The high post in **Diag. 4** is set up by one of the corner men, who breaks to foul line or above to hand off to one of the pair of outside cutters.

The double-screen in **Diag. 5** is tipped off by bringing the ball up the side, passing into the corner, and then the passer moving across court. The middle man joins him as he moves to screen for the far outside player.

The last sequence, **Diag. 6**, is indicated by the passer cutting off the post instead of moving to screen as in **Diag. 5**.

The action of these key players tells the others what sequence will be used. In this way, the entire team is aware of the particular pattern being used and what they can do to make it work.

This 3-out, 2-in setup is a moving offense that permits individual initiative, gives good board position, and yet affords backcourt safety against the opposition's possible fast break. These factors make for a good man-to-man offense.

The outside men in this offense should be good drivers, smooth ball-handlers, and threats with the long shot. The inside men must be strong rebounders, good post men (able to hand off deftly as well as score from the pivot position), and be able to move in the weave to assure maximum team efficiency.

IT'S a pleasure to report that Jack Ramsay, who cut his writing teeth in *Scholastic Coach*, is moving up to the major college coaching ranks after an illustrious career in the high school field. He has been appointed head basketball and baseball coach at his alma mater, St. Joseph's College (Philadelphia).

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screen, 4 moves to set up an inside screen for 1.

At the same time, 5 slides off and takes 1's original spot under the hoop. No. 2 passes off to 1 coming off 4's screen. No. 1 will probably receive this pass just before he reaches the free-throw line. He takes the shot if open, and players 3, 5, and 4 go in for the rebound while 1 and 2 maintain safety positions.

Diag. 6: If 1 doesn't shoot, 2 continues across to screen for 4. Meanwhile, 1 dribbles around 3 and passes off to 5, who has faked toward the basket and come outside 1 for the pass.

Bradley's Box Weave Attack

(Continued from page 7)

Again the shot over 3 may be open, or the drive, or the pass to 4 coming off 2's screen, as shown in **Diag. 7**.

The weave by 1, 2, 4, and 5 may continue until a good shot is obtained. No. 3 always goes to the board when a shot is taken, while the players in the original 1 and 2 spots always form the rest of the rebound triangle. The other two

men become the safeties.

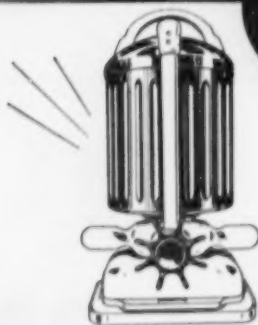
To incorporate the free-lance type of ball which almost every player likes, it's an "automatic" to pass into 3 on the pivot for the split-the-post play (**Diag. 8**).



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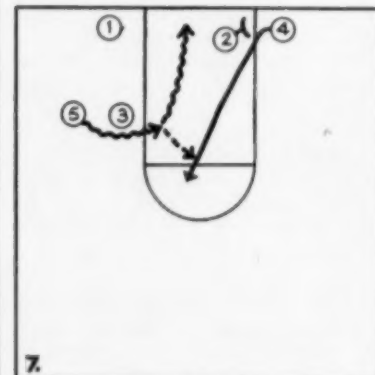
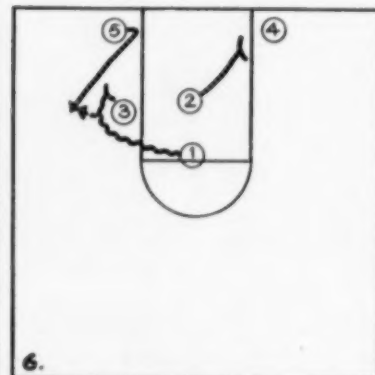
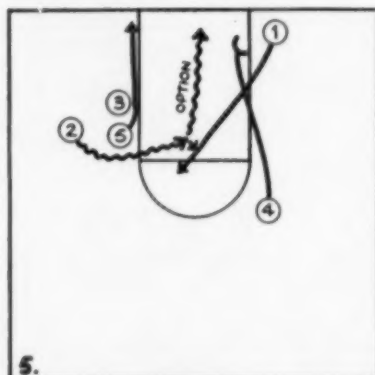
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It's also necessary to keep the defense honest on the weak side to prevent them from sinking; and two options are presented here to handle this situation.

In **Diag. 9**, player 4 passes to 5 and moves over to screen for him, as in



the other options. No. 5 then takes a solo drive to his right, with 2 moving away from the play. This makes for a one-on-one situation, which is one of the reasons why this offense requires good driving ability.

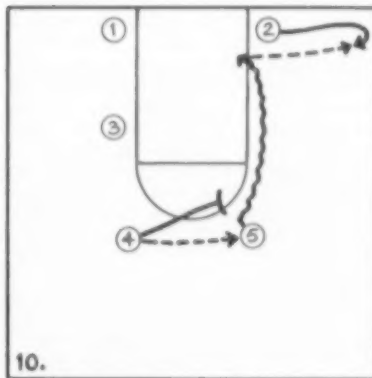
In the other option from the weak side (Diag. 10), player 5 again drives to his right after the pass and screen by 4. But this time 2 pulls to the corner rather than away from the play, and receives a pass for a set shot from the base line.

This option is designed against a defensive man (on No. 2) who sinks off to pick up 5 when the latter

drives in. In this option, players 5, 3, and 1 take the board, while 2 hustles out of the corner to team up with 4 for safety purposes.

The Box Weave may be worked from either the right or left side. The side on which it will be run is regulated by the position of the No. 3 or pivot man. That is, the side on which he stations himself will be the side toward which the offense will go.

In order to do a better job of teaching, I've broken down the entire offense into a number of drills which can be employed daily. It's important to do a good job of screen-



ing, and of course a high degree of timing is also essential.

To develop this timing, once the offense is thoroughly understood, I run the complete pattern as a warm-up drill. Our team seems to enjoy going through the offense several times before taking a shot. The pattern may also be used as a conditioner.

After nine seasons of college coaching, during which he won 83% of his games, Bob Vanatta arrived at Bradley U. last season and proceeded to lead the Braves to the finals of the NCAA regionals. He has coached at West Point, Southwest Missouri, and Central College (Mo.), his alma mater.

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setting mental equilibrium. This is significant only if the scouted team is affected by these outside factors.

The 11th and 12th men on the court—the officials—also rate observation. Here the scout must study the various interpretations of the rules. In some sections, a different brand of ball is played from the standpoint of body contact, pick-off plays, and general roughness. The scout must determine whether the officials call them close or loose under the boards and in general all over the floor.

The home crowd may constitute a problem. How do they react to the calling of certain types of plays, violations, and fouls? And what affect does this have on the players, coaches, and officials?

It's important to take note of the dimensions of the various courts and

Basketball Scouting Complete

(Continued from page 26)

what affect this has on the team's playing tactics. It's possible that a team with a large home court will find its game hampered when moving to a smaller court. The players won't have the same maneuvering room, and may tend to congest the playing areas—thus impairing their overall offensive performance.

POST-GAME PROCEDURES

The final whistle is merely a signal for the scout's real work to begin. Before plunging into his final analysis

and summation, the scout should use the immediate post-game period to add to his store of information.

Let's pick up our task out on the floor where the whistle has just ended the game. The scout who has been scrutinizing his opposition can often detect a trait or personality defect that up to now has been lying dormant. It's at this time that the players mentally sum up the kind of game they think they have played.

Facial expressions, reactions to their opponents under won or lost conditions, may carry significance. Do they comply with the convention of congratulating the opponent, win or lose, or are they apathetic? Do their reactions bear a stamp of significance that can be exploited against them at a later date?

More important, how do they react to each other? Try to visit their locker room. It's here that a team's harmony or lack of it can be easily detected. Try to determine the coach-player relationship. Notice particularly the type and quality of his remarks to the players and their reactions to them.

Try to hear all the conversation and the behavior of the players as they discuss the game. This conversation is rarely idle chatter. It represents first-hand information from the best possible source.

The locker-room visit also enables the scout to get close enough to the players to accurately compute their height, using either the coach, a player or himself as a yardstick. If the scout cannot get into the dressing room, he should observe as much as he can during the pre-game and actual game periods.

After the locker-room visit, the scout should drop into the pressbox and draw upon the knowledge of the scribes. Here are the men who have seen many players and games, perhaps seeing your opponents many times before. Any information received from this source may prove priceless, further strengthening your report.

Before leaving the press box, try to get all the information on the assists—if you haven't already compiled this information. Knowing the player who does a lot of passing can be valuable in setting up a defense.

Normally, after a night like this, a person would head for the bed and relax. But here and now is the vital homestretch of the scouting job. While everything is fresh in his mind, the scout should call upon all his know-how to make the final analysis. All the data must be appraised, set up on charts, analyzed and finally integrated.

The scout must show in detail the offense and defense diagrams and the methods of the team as a whole. His conclusions must include a detailed account of the playmakers, shooting stars, peculiarities of offense and de-



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fense, and each individual's strong and weak points. The caliber of the opposition must be discussed to some extent, and the reserve strength of the team must be carefully considered.

A comparison of the home games and road games must be drawn up, embracing the size and type of courts played on and any unusual continuity in games won or lost plus the margins of defeat or victory.

Try to establish their strong and weak moments, statistically, through the game just completed. Determine whether or not they might be a team that starts slow and finishes fast or vice versa. Have they had consistently good or bad first, second, third, and fourth quarters? Have they looked good or shabby against certain types of offense and defense?

How do they perform against slow and fast teams? Do they win the close ones or do they fold under pressure? Do they lose players via the foul route and does this affect the team as a whole? How many substitutions do they average per game? When they're replaced, are the same players substituted every time?

Are they impressive on road trips or do foreign courts pose a problem to them? If so, try to detect any divergencies that appear in their game at the time. Ascertain their reputation on and off the court during road trips. This can often provide a useful piece of information. Be careful to observe their relationship with the many officials with whom they come in contact.

• "Here Below"

(Continued from page 5)

So there you are. Judging by the statistics, our modern team is scoring 10.5 points more and yielding 2.6 points more per game than the teams of only 15 years ago. That's the evil or goodness—take your pick—wrought by the T formation.

Some fascinating trivia may be gleaned from the chart. Look at the 1925 Dartmouth and 1931 USC clubs. In an era in which the scoring average was 24.6 points per game, Dartmouth averaged 42.5 points and USC 34.2 points per contest!

Stingiest of all the champions was the 1932 Michigan club, which yielded a grand total of 1.6 points per game.

The only club to rack up more than 500 points in a season was the 1944 Army powerhouse. Davis, Blanchard & Co. tallied 504 points for an average of 56 points per game!

To fully grasp the incredibility of this feat, you've got to remember that only one other team has been able to score as many as 400 points in a season—and that was the Army club of the following year, which scored 412 points.

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Defensive Volleyball Tactics

By **WILLIAM T. ODENEAL**

Volleyball Coach, Florida State U. (Collegiate Champions)

IF EVERY volleyball player were equally adept at passing and spiking, a coach wouldn't have to worry too much about defense. It would practically take care of itself.

Since this rarely is the case, however, it's up to the coach to build a strong defensive rampart. As in football, the defense must exploit each individual's forte and be adjustable to the particular offense being employed.

The defense always starts with the serve. In receiving the opening "gun," the defensive players should take one of two positions. If the serve is easy to receive, they should set up in the center of their areas—except for the best set-up passer on the front line, who should stand in the front part of his area. Since the man directly behind him will have to cover for him, he (back man) should play a yard closer to him than normal.

This set-up enables each man to cover his own area. The exception, of course, is the man directly behind the set-up passer, who must cover almost two areas. See **Diag. 1**.

If the opponent's serve is very hard or deceptive, the players should stagger themselves across the court near the center (**Diag. 2**). Since approximately 85% of the

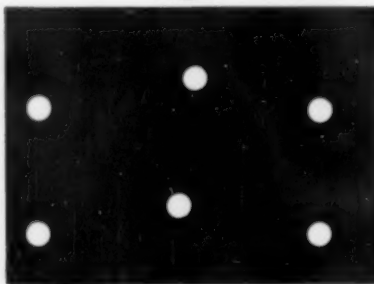
serves will fall within an area 6' in front and 6' in back of the area crosses, the players (when spread across the court in these areas) will be required to move very little sideways and only slightly forward or backward to handle the serve.

The ball should be received by a front-line player, if it's within his reach, with the back-line man covering for him. If the ball is hit between two players, the more aggressive man should step forward and take it. The team should be alert for this play and cover accordingly.

In receiving a fast spinning serve, a player should make every effort to get under the ball and play it directly in front of the face, overhead.

The fingers should be well spread with the hands tilted back slightly. The hard serve will hence bounce off the hands without injury to the fingers or loss of control. Most hard serves are missed because players

NET



Diag. 1, vs. Easy Serve

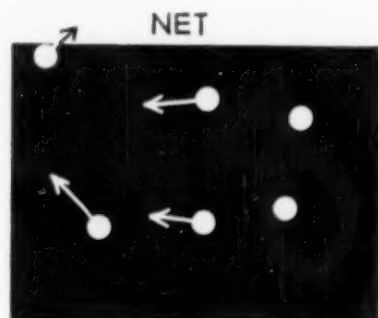
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Diag. 2, vs. Hard Serve

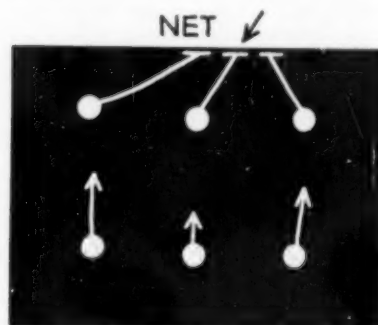
fail to move to the ball. They play the ball from an off-balance position and a poor pass or thrown ball results.

After the ball is passed forward for the set-up and the spiker goes up for the ball, the rest of the team should move into position to handle a possible block. The set-up passer goes directly behind the spiker, while the other players form a circle of protection behind. See **Diag. 3.**



Diag. 3, Circle of Protection

When the opposition has the ball, they too want to spike it or hit it where it cannot be returned. If their spiker is very good, a three-man block at the net may be used to try to stop or slow the spike.



Diag. 4, Front Line Blocking

Several variations of the three-man blocking system are available. **Diag. 4** shows the front line blocking and the back line covering for tips and hits off the block. This method is very effective when the opponents set the ball near the middle of the court.

Diag. 5 shows the center back going to the front line to block, leaving an extra front-line man free to spike the ball in case it comes off the block and can be set to him.

The center back and the center-front players wait until the ball is set to the opposing spiker before moving into the blocking position. Where the center-back man moves into position on one side of the

(Continued on page 62)

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SCREENING FOR BASKETBALL APTITUDE

MANY basketball coaches have no difficulty screening their squads. They size up their players in a purely subjective manner, then keep the "promising" material and cut the "driftwood."

The more conscientious type of coach (which includes the writer) spends many hours and many sleepless nights trying to justify his selections, particularly with regard to the border-line cases.

From the standpoint of both fair play and future squad efficiency, every coach should have some objective method of selecting a squad.

With this in mind, the author has attempted, with the use of statistical procedures, to develop a fair and unbiased formula for measuring *natural ability* in basketball.

In researching the field of aptitude and performance tests, the author located two (one aptitude and one performance) that seemed to possess particular merit.

A Test Of Basketball Aptitude: This study by N. G. Lehsten was conducted in physical education classes at the University High School, Ann Arbor, Mich. The criterion test consisted of a subjective rating of one

to five points by a jury of five experts. Each player was then given the following eight tests:

1. Standing height to the nearest inch.
2. Baskets per minute; the player takes his first shot from the free-throw line, then recovers the ball and continues to shoot from whatever position seems most advantageous. After one minute, the whistle is blown and the number of baskets recorded. Misses do not count.
3. Forty-foot dash; recorded to the nearest tenth of a second.
4. Vertical jump; the distance between chalk marks made on a jump-and-reach board from a reaching position and a jumping position.
5. Burpee motor ability test.
6. Dodging run.
7. Free throws; number made out of ten.
8. Wall bounce; player stands six feet from the wall and bounces ball against a target painted on the wall. Score is the number of bounces made in ten seconds.

The means and standard deviations were computed for all eight tests and the resulting eight standard scores were added together for a total score. A zero order correlation was then computed between this score and the criterion ratings. The total T scores were found to correlate .80 with the subjective ratings of the jury.

The five events of dodging run, forty-foot dash, baskets per minute, wall bounce, and vertical jump all correlated .70 or better with the criterion, and as a test battery correlated .968 with the original eight events.

The author believes it's worthwhile to note that the final test battery contained no measure of height.

A Test Of Basketball Performance: This study by E. F. Voltmer and T. Watts was conducted at Albion College, Albion, Mich. It consists of nothing more than keeping charts and statistics during games and awarding points for certain things and subtract-

¹ N. G. Lehsten, *Scholastic Coach*, 19:62-5, (October, 1949).

² E. F. Voltmer and T. Watts, *Journal of Health and Physical Education*, 11:94-5, (February, 1940).

Wall Bounce	
75	- 8.81
77	- 9.03
79	- 9.28
81	- 9.52
83	- 9.75
85	- 9.99
87	-10.22
89	-10.46
91	-10.69
93	-10.93
95	-11.16
97	-11.40
99	-11.63
101	-11.87
103	-12.10
105	-12.34
107	-12.57
109	-12.81
111	-13.04
113	-13.28
115	-13.51
117	-13.75
119	-13.98
121	-14.22
123	-14.45
125	-14.69
127	-14.92
129	-15.16
131	-15.39
133	-15.63
135	-15.86
137	-16.10
139	-16.33
141	-16.57
143	-16.80
145	-17.04
147	-17.27
149	-17.51
151	-17.74
153	-17.98
155	-18.21
157	-18.45
159	-18.68

35' DASH	
20	- 83.07
21	- 87.23
22	- 91.38
23	- 95.54
24	- 99.69
25	-103.84
26	-108.00
27	-112.15
28	-116.30
29	-120.46
30	-124.61

JUMPING HT.	
85	131.14
86	132.68
87	134.22
88	135.77
89	137.31
90	138.85
91	140.39
92	141.94
93	143.48
94	145.02
95	146.57
96	148.11
97	149.65
98	151.19
99	152.74
100	154.28
101	155.82
102	157.37
103	158.91
104	160.45
105	161.99
106	163.54
107	165.08
108	166.62
109	168.17
110	169.71
111	171.25

VERTICAL JUMP	
9	-22.03
10	-24.48
11	-26.93
12	-29.37
13	-31.82
14	-34.27
15	-36.72
16	-39.16
17	-41.61
18	-44.06
19	-46.51
20	-48.96
21	-51.40

FREE THROWS	
1	2.62
2	5.23
3	7.85
4	10.46
5	13.08
6	15.69
7	18.31
8	20.92
9	23.54
10	26.15
11	28.77
12	31.38
13	34.00
14	36.61
15	39.23
16	41.84
17	44.46
18	47.08
19	49.69

RESULTS	
WB	- 9.75
35D	-112.15
VJ	- 39.16
Total	
-161.06	
JH	168.17
FT	39.23
K	33.55
Total	
240.95	
-161.06	
Test Score	79.89

SAMPLE SCORING

Actual test results of Bob Wright (referred to on page 47). Each performance is checked off on corresponding scale chart. Then results are tabulated as shown directly above. Negative scores are added, then positive scores. Then negative total (161.06) is subtracted from positive total (240.95) — yielding an overall test score of 79.89, which, according to the table on page 47, puts the subject in the "good" category with respect to basketball aptitude.

ing points for others. It has no mathematical background, but when tested empirically, it seemed to differentiate between good and poor players. The test is described by the following:

Points are awarded when a player:

1. Makes a basket 3
2. Makes a free throw 1
3. Gains possession 1
4. Ties up ball $\frac{1}{2}$
5. Gains possession after jump $\frac{1}{2}$

Points are taken away when a player:

1. Misses a basket (including free throws) 1
2. Loses possession 1
3. Commits a foul 1
4. Man scores basket 1
5. Gets tied up with ball $\frac{1}{2}$

It's the author's belief that a player's score is greatly influenced by the caliber of the opposing player. However, where this is taken into consideration and an average score taken for several games, this test should prove fairly reliable.

Conclusions Drawn From Previous Studies: It's believed that a boy should not be selected on the basis of performance alone, as some are ahead of others in experience and coaching. The natural ability or aptitude a boy possesses should be the initial factor considered in his selection.

In this first screening, using a test of aptitude, a coach should select about five more players than he actually needs. Then, after a month or so of coaching, the squad could be cut down to the appropriate number, using an objective test of basketball performance.

In the following, the author will limit his task to the development of a test of natural ability, leaving the remainder to existing tests or subjective judgment.

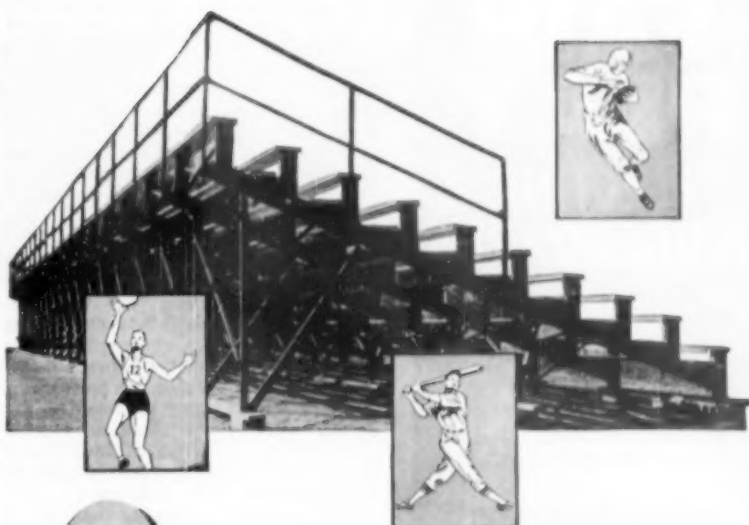
THE PRESENT STUDY

Population And Sample: The population from which the sample was drawn included any eighth grader who showed any ability in basketball at all. (In order for a thing to be measured, it must first exist in some quantity.)

This initial screening was accomplished in physical education classes by having each boy dribble in and lay up a shot. Any boy who could come close to accomplishing this feat was included in the population.

Each boy in the population was then assigned numbers from 00 to 30 (the total being 31). Twenty numbers between 00 and 30 (including the first and last numbers) were then read from the table of random numbers, the starting point being decided before the book was opened. These 20 were the original sample. When one boy dropped out later on, the number was reduced to 19.

Method Of Rating Sample: From the remainder of the population, five players were selected as follows: one



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excellent, one good, one average, one fair, and one poor. The ability of these five players was the standard by which the sample players were scored.

The scoring was accomplished as follows: Each player of the sample was given two opportunities to score against each of the standard players from three different floor positions. The play was strictly a man-to-man situation, with only two players on the floor. In case of a foul, an appropriate number of foul shots was awarded to the offended player.

The total possible points on offense was 2 x 3 x 5 or 30 baskets or 60 points. The situation was then repeated with standard players taking offense and players of sample taking defense. Total possible score against each player was again 60 points.

The criterion score for each player of the sample was then sixty* plus points scored on offense minus points scored against each player on defense. Total possible score was 120.

The criterion scores arrived at in this manner were very close to what the author considered they should be. However, the test was strictly objective, with no subjective judgment entering the picture at all. The time taken for the criterion test was 10 practice sessions, or about 15 hours.

Description of Tests: After the criterion scores were obtained, each of the 19 players were submitted to the following tests:

1. **Standing height;** measured to the nearest inch.
2. **Jumping height;** player holds chalk between thumb and first two fingers and jumps to see how high a mark he can make on a jump-and-reach board (which was a suspended blackboard).
3. **Reaching height;** player stands flat-footed and reaches with chalk, held as in test two, to see how high a mark can be made on the jump-and-reach board (nearest inch).
4. **Vertical jump;** the distance between chalk marks in test two and test three.
5. **Thirty-five foot dash** in tenths of seconds; part of this test will be ability to get started quickly and the other part, the ability to move fast after starting. Reaction time and speed are thereby both measured. The player doesn't get down on the mark, but starts from a standing position. The timer is also the starter and stands even with the string held over finish line. In this way, he can start the watch immediately on the word go and thereby eliminate a possible source of error. If the timer doesn't believe the player has put forth his best effort, the player should repeat the test.

6. **Dodge-dribble test;** five chairs are arranged five feet apart and five feet from the starting line. The dribbling time in tenths of seconds is then taken from the starting point, in and out through the chairs, and back to the starting point.

* Each player was given 60 points to avoid negative scores.

7. **Free throws;** number made of 25.

8. **Wall bounce;** the player stands behind a line five feet from the wall and bounces the ball against the wall approximately one foot over his head. The score is the amount of time in tenths of seconds it takes to make 15 bounces. If the ball takes a bad bounce off the wall, the test should be repeated.

9. **Bi-directional speed;** the player stands in the center circle astride the center line. A wooden folding chair is placed 20 feet to the right and 20 feet to the left. The timer then calls right or left and at the same time starts his watch. The player runs in the appropriate direction and slaps the seat of the chair with his outstretched hand as timer stops watch. The score is the time in tenths of seconds it takes to make two trips in each direction. The timer shouldn't run his watch back between trips, but start it where it stops. Care must be taken to keep the player from anticipating the direction to be called. It's usually necessary to have each player make six or seven runs and time only four.

STATISTICAL TREATMENT

After the criterion scores and the scores on the nine tests were obtained, the data were treated statistically. Each of the nine tests was correlated with the criterion test (ability to play basketball), and all intercorrelations between tests were computed.

The Wherry-Doolittle test selection method was then applied. This method mathematically selected the best combination of tests from the original nine—those which showed the highest multiple correlation with the criterion test.

Since the procedure is much too complex to include here, suffice it to say that the results showed that five of the tests had a multiple correlation of .8008 with the criterion test (ability to play basketball). These five tests were wall bounce, jumping height, free throws, 35-foot dash, and vertical jump.

The other four tests (standing height, reaching height, dodge-dribble, and bi-directional speed) were then rejected as being of no further use. However, the writer believes it's important to know why they were rejected. For instance, the Wherry-Doolittle procedure showed that jumping height is more important than reaching or standing height, and speed in one direction is more significant than lesser speed in both.

After these five tests were selected as the test battery, it then became important to determine how much each test contributed or how much weight was to be attached to each.

This was done by computing a regression equation as follows:

$$X_c = -.1175X_1 + 1.5428X_2 + 2.6153X_3 - 4.1537X_4 - 2.4478X_5 + 33.5517$$

where

X_1 = Score on wall bounce test.

X_2 = Jumping height in inches.

X₁ = Number of free throws out of 25.
 X₂ = Time on 35' dash.
 X₃ = Vertical jump to the nearest inch.

Anyone with a year of high school algebra should have no trouble substituting the results of these five tests into the regression equation to determine a player's aptitude in basketball.

Coaches unfamiliar with statistics or bewildered by figures may employ a greatly simplified scoring system devised by the writer. This system consists of a scoring scale for each of the five accepted tests.

As the subject completes a test, his performance is checked on the scoring form—which shows the points the particular performance merits. After finishing his five tests, the boy's scores may be added up to arrive at his overall total.

To be specific: Look at the accompanying example. It shows the testing of one of my boys, Bob Wright. Notice how his performance in each of the tests is checked. The negative scores are added, ditto the positive scores. Then the negative total (161.06) is subtracted from the positive total (240.95), yielding an overall test score of 79.89.

For best results, everybody in the group should be given the first test before proceeding to the second, and so on. This is a time-saver. Simply check off each boy's performance on the scale sheet. When the entire group has been tested, the scores may be calculated.

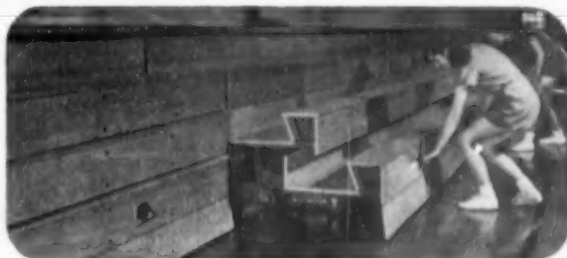
The following index may be used to rate both the individual tests and the overall test score.

	POOR	AVERAGE	GOOD
TOTAL TEST SCORE	up to 45	46-62	63 up
Wall bounce in seconds	12.6 up	10.9-12.5	10.8 down
Jumping height in inches	up to 95	96-100	101 up
Free throws No. out of 25	up to 7	8-12	13 up
35 Ft. dash in seconds	2.7 up	2.4-2.6	2.3 down
Vertical jump in inches	up to 13	14-16	17 up

In short, boys making an overall test score up to 45 may be considered poor in natural ability; those making between 46 and 62 may be deemed average in natural ability; and those making a score of 63 or over may be considered good in natural ability.

The test has been validated by two methods; first, by calculating the correlation between aptitude tests and an average subjective rating given the boys by myself and two other coaches. This correlation was .82. The second method was to correlate scores from the Voltmer and Watts Rating Scale of performance with aptitude scores. This correlation was .73. In both cases, the correlation I hoped to get was not 1, but something near .8—as this was what the aptitude test correlated with playing ability.

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By **W. HAROLD O'CONNOR**
Track Coach, Concord (Mass.) High School

Warm-up as an Aid to Track Performance

ONE of the most puzzling contradictions in track is the willingness of most athletes to drive themselves in preparation for their event and then on the day of the meet spend so little time in warming up as to handicap themselves.

This is especially true of high school trackmen—despite the fact that the demand for top-notch performance is becoming greater and greater. The sprint that a few years ago could be won in 10:5 must now be run in 10.2. The 440 that could have been won in 53 five years ago now demands 51 or better. The high jump that used to go at 5-10 can now be won only with better than 6-0.

In many areas, the performances are even better. But, by the same token, the margins of difference between the winner and the also-rans become less and less. A few years ago a shot putter who could hit 55 drew admiring crowds. Last year in California a high school boy pushed the iron ball out over 56 and failed to make the finals in the state meet!

Such fine performances certainly call for real ability and fine coaching. They also demand careful preparation up to and including the warm-up just before competition.

Many athletes and some coaches associate a real warm-up only with the distance runs. While it's certainly true that your half-milers, milers, and cross-country runners would be foolish to enter their events without working up a good sweat and loosening their muscles until they feel the warm glow of readiness, it's just as true that contestants in other events from the 50-yard dash to the hammer throw must warm up thoroughly to achieve the peak performances now demanded in almost all high school and college meets.

The types of warm-up used should vary according to the individual and the event.

Obviously, the warm-up constitutes an attempt to adjust the body to the demands of competition. If the athlete fails to warm up properly, he'll be working at less than

maximum power for a time. His first trial may thus merely serve as the final stage of his warm-up, with his best effort coming on his second trial or race.

Where the warm-up is adequate, however, the boy's heart, lungs, and muscles will be ready to work at top speed from the instant he leaves his marks or makes that explosive effort in a jump or throw. That feeling of readiness that stems from a correct warm-up also aids in the mental preparation for all-out competition. It's far too valuable to waste or misuse.

It seems to me that it's a serious mistake to demand a set warm-up pattern for each member of the team. The boy in good condition certainly doesn't require the same type or length of warm-up as the boy

suffering from muscle soreness or who is recovering from an earlier pull. The boy who is racing under a boiling sun has a different need than the fellow competing in an April meet with a cold wind blowing rain in his face.

I think we've reached the stage in our track and field thinking where we must study pre-competition warm-up, event by event.

For most athletes in good condition after several weeks of hard training, it seems advisable to start the warm-up about a half hour before first trials or first efforts in the field events. I'm convinced that the boy bothered by muscle soreness or who has previously suffered from a pulled muscle should begin his warm-up a full 45 minutes before starting time.



After watching our best pro golfers prepare for an all-important round, I've learned something else that can be applied to track. I've noticed that they will begin with their shortest irons and work back to their longest woods. This pattern makes sense. Dozens of high school and some college track men never really "get past their irons," so to speak. Their whole period of preparation is devoted to jogging and easy striding with a few half-hearted calisthenics thrown in as an afterthought. Yet the instant the gun goes off they're required to break into an explosive sprint for position, whether the race is the 100-yard dash or the mile. I can't make myself believe that these runners are ready for their best effort.

SPRINTERS AND HURDLERS

Let's consider the sprinters and, to some extent, the hurdlers and see what's needed to ready them for top competitive effort. It doesn't really matter whether your boy is by nature a 10.8 or a 9.8 sprinter, a 15-second high hurdler or a 14-second man. Their races make demands upon the same sets of muscles.

Your hurdler is really a sprinter until he reaches his first hurdle and again as he races between hurdles. It seems sensible, then, to insist upon certain phases of the warm-up for both.

I like to start my sprinters and hurdlers warming up about half an hour before competition. I want them to jog about a lap, then stride half a lap. Next, I want each boy to start his stretching and bending exercises. I want the sprinter and the hurdler to work into some fast running-in-place. I then want my hurdlers on the ground doing the hurdler's stretch.

The effort should be gradual, emphasizing the loosening of the back muscles by the bend over the out-stretched lead leg. I believe that both hurdlers and sprinters should then take several starts. The starts should begin with about half effort and then build up to full effort on about the fifth and sixth starts.

They should be more than just a simple drive off the mark. They should be carried for about 15 or 20 yards.

Except in the hurdle-stepping exercise, the hurdler should never take his practice hurdles in less than racing speed. Too many sprinters and hurdlers go through a half-hearted routine that they call warming up. Many that I've watched never once tried racing speed in any of their starts.

While I don't believe a boy should go through his whole racing distance

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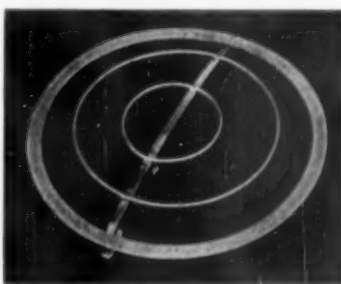
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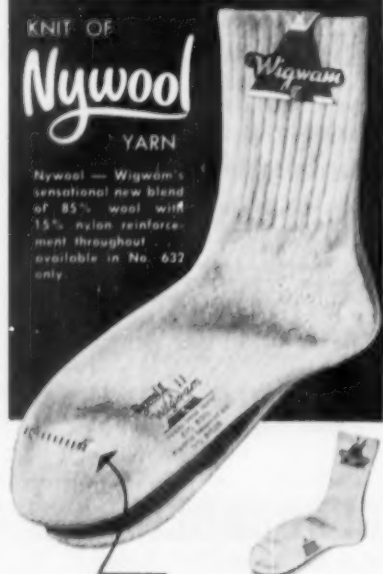
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at top speed just before competition. I'm convinced there's merit in taking a sprint or two that's more than just a couple of quick steps off the starting blocks. If the driving force of the sprinter comes from those thigh muscles, it makes sense to ready those muscles by some warm-up action that involves them.

It seems equally obvious that the hurdler must go to that first hurdle or two at racing speed, if he's to be ready for the speed and stretch involved in his competition.

Finally, after the boys have worked up a good sweat from such preparation, they should be urged to keep on their warm-up suits and stay off the ground so that they can retain that glow until their races start. They should be watching the time schedule on the alert for an early call or a delay in their particular event. Any change in the time schedule should be discerned by the athlete, and his warm-up activities timed accordingly.

Your low hurdler is even more of a sprinter than your high hurdler, and his preparation should be similar to the warm-up demands of your dash man. I feel that an additional phase is required of him, however. His race calls for more than speed alone. It involves fast, regular, even striding. In that respect, your low hurdler and your broad jumper have something in common.

To me, that spells out a stage in which your boy must really start from his marks and go over his first three hurdles at racing speed, working to achieve the rhythm and stride length he hopes to carry in his competition. Regularity of stride length is a factor here.

QUARTER-MILERS

Perhaps no other man on your team needs more careful preparation than your quarter-miler. His race is generally recognized as the most demanding in track. That very fact should be enough to make your 440-man realize that he's very foolish to go to his marks without being as nearly ready for all-out effort as possible.

His race calls for hard sprinting in its early stages, hard striding through the middle, and another man-testing burst of speed for the tape. We have too many great 300-yard quarter milers; and I contend that this is partly due to lack of adequate preparation in training and partly the result of inadequate warm-up.

The quarter-miler needs plenty of time for preparation. He needs a little early jogging, quite a lot of easy striding, stretching and loosening exercises, hard striding, and then

short bursts of full speed. He needs to get on his marks and go out of them with real authority to prepare for that sprint for position he's bound to face when the race gets underway. He should be warm, sweating, and even a little tired about 10 minutes before his race. The tiredness will quickly disappear; he need have no fear about that.

In preparing for this event, you should consider the nature of the particular competitor. If he's the dash man type who gets out in front quickly and tries to outrace the field, don't neglect to emphasize the sprinting phase of his warm-up. If he's the tall, long-striding boy, make sure to work plenty of hard striding into his preparation.

DISTANCE MEN

Warm-up for your half-milers and milers should emphasize some of the same things your quarter-milers require. The main difference seems to be in the length of time most of our best distance men spend in warming up. You have only to notice them as they get ready for the day's competition. It's nothing unusual for men like Mal Whitfield to cover far more than their racing distance in the warm-up. Milers who've suffered muscular handicaps like Glenn Cunningham always spent extra time in preparation.

Watching some of our best distance men warm up, a lot of youngsters will gasp, "They'll be all shot when it's time to race!" What should be more significant to them is the fact that they never are.

So should it be with our own milers and half milers. Their warm-up should be long and strenuous. It should include jogging, easy striding, exercises to loosen the back, shoulder, and leg muscles, and quite a few short sharp bursts of speed along with several periods of striding at racing pace.

Sprints are also a mighty important phase of the 880-man's warm-up, and can be used judiciously in the preparation of your milers, too.

While your field event men should also incorporate sprinting and striding in their warm-up, there seem to be some significant differences in their needs.

HIGH JUMPERS

For example, your high jumpers usually need to deemphasize speed in their approach. They need to conserve energy; yet be loose and relaxed for top effort. Your high jumper needs preparation that will loosen his back muscles. Much of his exercise should be the type that will bring relaxation to the lower back.

He shouldn't do too much bouncing on the day of the meet. A few minutes of it to get the feeling of springiness into his legs should be sufficient.

He needs only a little sprinting and some easy stretching stride work. He can use the hurdler's stretching exercises and a few—not too many—high kicks. These kicks shouldn't be attempted until the boy is warm and loose. They shouldn't be too violent and shouldn't require too great extension.

BROAD JUMPERS

The broad jumper faces a different sort of problem. Like the sprinter, he must be ready for speed; like the jumper, he must have bounce; and like the hurdler, he must develop a smooth regular stride that will bring him to the board ready to jump.

Once the broad jumper has gone through the jogging, striding, sprinting stage of his preparation, he should complete his warm-up by sprinting down the runway rather than the track. If he has been faithful in getting his check marks, he'll only need a few sprints to the board and no jumps to be ready for his event.

His sprints will serve as double preparation. They can be part of his warm-up as well as a means of checking his marks to see whether they need moving forward or backward as a result of the meet conditions.

WEIGHT MEN

Perhaps you've never thought of it in this way, but your weight men have something in common with your high jumpers. They must put everything into a single brief, violent effort.

They have no time span in which to recover from errors in timing. The miler can sometimes regain the distance lost in a poor start. Even the sprinter has precious seconds at the end of his dash to try to make up that stride lost at the start.

Your weight men and high jumpers are not so fortunate. They have only tiny fractions of seconds to undo any mistakes in timing. That fact makes it all the more important that they warm-up well.

They too need some short sprints, a little striding, some exercises that loosen their back muscles, and some practice throws. Loosening of the wrists and the lower back demands attention here.

As a further aid to correct warm-up, your shot putter should note carefully in his weekly practice sessions just how many practice throws he

(Concluded on page 59)

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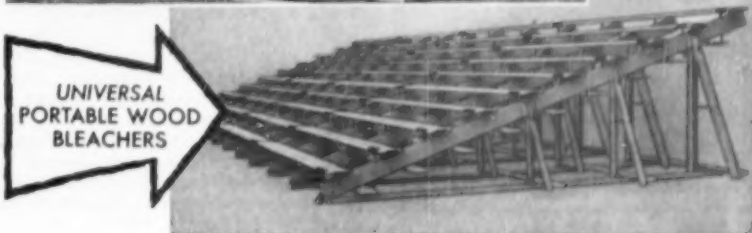
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New Books on the Sport Shelf

- **A HANDBOOK OF FOOTBALL SCOUTING AND FILM ANALYSIS.** By Edward L. Teague, Jr. and Emmett Cheek. Pp. 65. Illustrated—charts. Dubuque, Iowa: Wm. C. Brown Co. \$1.75.

THIS 8 1/2" by 11" handbook offers a sound, comprehensive method of recording and analyzing football data. Written by the chief "seeing eyes" of the U. of Maryland, it deals with specific charts, their use, analysis, and presentation in scout-report form.

All the methods employed are true and tried, and have been successfully utilized on both the college and high school level.

Part 1 embodies eight sections: Scouting the opponent, gathering the information, analysis of material, presentation of the scout report, high school scouting with the chart method, selected references, sample scout report form to head coach, and post game report form.

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The material is excellently presented and furnished with 16 superb charts guaranteed to expedite the scouting job. Any scout anywhere can use the book with extreme benefit.

- **TRACK AND FIELD INSTRUCTIONAL PAMPHLETS.** Edited by H. A. L. Chapman. 12 pp. each. Illustrated—drawings. New York: Soccer Associates. 25¢ each.

HERE'S a series of six practical folders, produced in progressive action fashion, on six different track and field events—sprinting, discus, hurdles, middle distance, high jump, and sprint start.

Edited by H. A. L. Chapman, chief athlete coach for Scotland, each folder contains eight excellent drawings offering a sequential view of the particular event, with each illustration being analyzed clearly and tersely. Each folder also contains a general introduction to the event and a page of general hints on training.

The folders are 7 1/4" x 4 1/4" and open up in accordion fashion to a length of 40"—making them ideal for use both as instructional booklets and bulletin-board displays.

The American distributors, Soccer Associates, may be reached at 10 Overlook Terrace, New York 33, N.Y.

- **WOMEN'S ATHLETICS (Track and Field).** By George Pallett. Pp. 290. Illustrated. New York: Soccer Associates. \$3.75.

WITH so little material being available on women's track and field, this book should prove a welcome addition to the reference library. The author,

one of the best known coaches in England, describes the rapid growth of women's athletics throughout the world and offers a thoroughly practical section on track and field techniques.

As coach of more than a dozen post-war international stars, his methods should be of interest to athletes, coaches, and administrators.

Also included are a foreword by Fanny Blankers-Koen and a valuable reference appendix of records, results and tables of all the outstanding international and British meetings.

- **CONTROL OF SPORTS (Interscholastic and Intramural for Boys).** By J. E. Gargan. Pp. 109. Hartford, Conn.: Hartford Public Schools. \$2.

THE policies and regulations delineated in this 11" by 9" spiral-bound text concern the control and supervision of interscholastic and intramural athletics in the public schools of Hartford, Conn.

The author, who is director of physical and health education, clearly and thoroughly outlines the conduct of the entire program. That includes the elementary, junior high, and senior high levels.

The bulk of the book appears under two main headings. In "Duties of the Staff," Mr. Gargan breaks down the functions of the director, varsity coach, intramural coach, teacher-coach, student teacher, gym assistant, general physician, football physician, and basketball physician.

In "Management of Contests," the author touches such vital concerns as excuses from phys ed, physical exams, football exam procedure, insurance, regulations for practice, length of season and number of games, football schedules, conduct of football games, baseball regulations, athletic eligibility, purchase of equipment, physical facilities, broadcast of games, athletic awards, cancellation and postponement, regulations for use of field-house and stadium, and other pertinent subjects.

A valuable appendix contains helpful forms on such school concerns as parents' permission, teachers' liability, care of valuables, announcements for special football, track, and basketball contests, transportation to "away" games, tournaments, etc.

Though some of the material in the book is of a localized nature, the great bulk of it can be used with considerable profit by every school physical education department.

Copies of the book may be purchased through Mr. Joseph E. Gargan, Board of Education, 249 High Street, Hartford, Conn.

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NEW SWIMMING FILM

- **SWIMMING THE DOLPHIN BUTTERFLY BREAST STROKE.** Directed by David A. Armbruster. 16-mm. sound, black and white. Running time, 16 min. Iowa City, Iowa; Bureau of Audio Visual Instruction, Extension Div., State U. of Iowa. \$65.

SUPERB is just the word for this technical instructional film produced under the direction of Iowa's famous swimming coach, Dave Armbruster.

The film magnificently breaks down the components of the dolphin butterfly breast stroke. Using both overhead and underwater angles, the film clearly and thoroughly analyzes the essential learning techniques and methods.

The entire body action—head, arms, body, and the remarkable kick—is graphically demonstrated in semi-slow motion and concisely explained by Coach Armbruster. The important timing and synchronized arm-leg action is particularly well covered.

Coach Armbruster also offers an effective "chalk-talk" on the stroke, using excellent drawings to highlight the essential points, and presents some fine training methods.

All in all, this film can be recommended without reservation to all swim instructors and coaches. You couldn't find a better teaching aid on the stroke.

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By **STEVE SEBO**

Head Coach, University of Pennsylvania

Offensive Football Trends

Written for the Eastern Intercollegiate Football Association

OVER the years, coaches have learned to defend the double wing, the single wing, and the T. And they're now beginning to lower the boom on the Split T.

If the past is any guide to the future, that means you can expect a revolution in offensive football. For, whenever the defensive "key" to a particular offense is found, our coaches can always be depended upon to come up with something new in the way of attack.

Perhaps the day of the pure Split T, as designed by Don Faurot and Bud Wilkinson, is setting. But the deep thinking and planning that went into this successor to the T will still have a great influence on the offenses being used by Eastern Colleges. That's observation No. 1.

Five other offensive trends will be noticeable in the Eastern sector of the country. Keep your eye peeled for the following:

1. Wider use of the "belly series."
2. Teams adapting the Penn State "scissors play" that has proved so successful for Rip Engle.
3. More and more Split T teams integrating single wing blocking with the pure Split T blocking, a la Jim Tatum at Maryland.
4. More widespread use of flankers, following the success Eddie Erdelatz has had with them at Navy, as well as of the Lefty James "draw play" at Cornell.
5. Wider use of the "Miami Drive" series, which gives the Split T some of the old-fashioned power identified with the single wing attack.

While there's nothing mystifying about these tactics, each represents a "frill," or an addition to the existing repertoire of plays, which the defense may not be altogether prepared to stop.

The "belly series" is a product of single platoon football. It's original intent was to alleviate the burden on the quarterback and thus enable him to handle his defensive chores to greater advantage.

In the "belly series," the quarterback thrusts the ball into the full-

back's stomach and rides him for a moment, either letting the fullback keep the ball or withdrawing it. Fullbacks are pretty much the same—big and mean and ready to hit the line every play.

Many coaches have added another fillip or two that makes the fullback deadlier than ever—and that is speed and deception. With these added characteristics, the "belly series" can be a devastating tool—and the quarterback needn't take the beating he underwent in the early days of the Split T.

Coach Rip Engle has achieved a lot of success with the "scissors play." It starts out like a Split T play, but the ball is then handed off to the right halfback who runs to the opposite side on a counter play.

What makes this play so successful? It's almost (but not quite) as simple as this: The defense has learned to "key" off the movements of the quarterback, who normally operates east and west behind the scrimmage line. If the qb starts to the east (or right), the defense immediately reacts to a play that will go to the right side of the field.

And then along comes the "scissors play." The ball is faked to the fullback and given to the right half, who gallops around the west (left) side of the line after the defense has committed itself in the opposite direction.

Not only does the "scissors play" pose a big threat, but it also makes the defense hesitate a moment before filling up holes that normally would be plugged to stop a play run from a pure Split T.

Jim Tatum, an early proponent of the Split T, has integrated single wing blocking by pulling linemen to add deception and power to the running game. This innovation is the direct result of having a quarterback spinning both to his right and left. And with it, Maryland is getting more power blocking than the conventional T.

Along with the introduction of the Erdelatz flankers, you'll be seeing

more of the Cornell "draw" plays designed by Lefty James. These refinements have come about with greater understanding of the strength and weakness of the pure Split T.

Now that flankers can be used for both running and passing, they're just another weapon to keep the defense "honest." With the added threat of the "draw" play (where the qb hands off to the fullback who races up the center against a defense expecting a pass play or wide run), the Split T has a better chance of staying ahead of the defense.

One of the newest spicings to the Split T has been the "Miami Drive" series—another instance where necessity mothered something brand new. When Andy Gustafson found himself without a good passing quarterback or fast breakaway runners but blessed with a group of big, hard-running backs, he realigned his offense.

In this offshoot of the pure Split T, all blocking is straight ahead with the backs leading the ball-carrier and sweeping away any defensive men in the way.

Not a particularly spectacular attack, the "Miami Drive" series does grind out the yardage in three, four, and five yard chunks and permits the offensive team to control the ball for longer periods of time than any single wing attack since the Jock Sutherland product that featured the off-tackle smash.

Perhaps greater variety in offenses will be seen this season than ever before. The changes are bound to make for higher scoring and more exciting games—and start the coaches lying awake at nights to figure out new ways to stop the latest innovations. But that's the way the ball has always bounced!



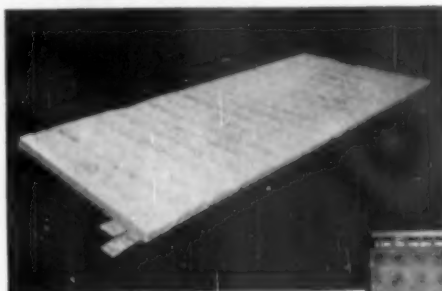
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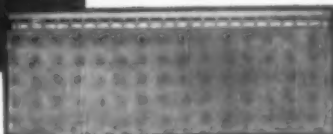
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COACHES' CORNER



Please send all contributions to this column to: *Scholastic Coach, Coaches' Corner Dept.*, 33 West 42 St., New York 36, N. Y.

TOM DAVIES, Pitt's All-American back of the 1920's, likes to tell about the day his Western Reserve team was playing a southwestern opponent.

"We had a halfback," recalls Tom, "who was lightning on the getaway. He could start as fast as any boy I ever saw. But on this occasion, he got into an argument with the referee."

"Several times during the first half, we were penalized for backfield in motion, with this speedster guilty. Between halves I thought I'd speak to the official about it."

"I don't think my player is beating the gun," I told him. "He's just so quick on the break that he fools you."

"The referee never batted an eye. 'Coach,' he said, 'I'm not penalizing your boy for being in motion—I'm penalizing the other ten players for delay of game!'"

When **Bronko Nagurski** was helping rival clubs boost their hospital bills to an all-time high, he had everybody in the pro league rigging special defenses to stop him.

A week before a certain team was scheduled to tackle the Bears, its coach instructed his hired hands to play a normal game and forget about concentrating on the awesome Bronk. This disturbed a rookie halfback. Having never seen the Bronk, he had been expecting some special schooling on the subject.

The day before the game, the rookie plaintively asked his coach: "Will you at least tell me what Nagurski looks like and how he cuts, so I'll know where to look for him in the secondary?"

"Don't worry, young man," the coach replied. "You won't have to go looking for Bronko. He'll find you!"

Jim Crowley, a great star in his senior year at Notre Dame, faltered just once. Against Princeton, he got out into the open and then showboated a bit, enabling the fine Tiger back,

Slagle, to nail him from the rear.

In the locker room, Sleepy Jim was apologetic. "I made a mistake," he confessed to Coach Rockne. "I didn't know Slagle was that fast. I should have cut back."

"That wasn't your mistake," cracked Rockne.

"Yes it was," repeated Crowley. "And I admit it."

"No," purred Rockne, like a contented rattlesnake. "It was just that Slagle didn't know who you are. If you'd have shown him all those clippings you've been saving, he wouldn't have dared to come near you."

Returning from summer vacation, Crowley popped into Rockne's office. This was after fame had tapped him heavily on the shoulder.

"Coach," he said, "I ran into a great high school player in Green Bay."

"Good is he?" Rockne echoed.

"Awful good."

"You really mean that, Jim?"

"He's awful good."

"You mean—as good as you?"

"Well," murmured Crowley, edging toward the door. "Perhaps not that—but awful good."

Some 300 plebes turned out for the Navy freshman team this fall. Coach

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Bo Coppedge had them sign up at individual tables reserved for guards, centers, tackles, etc. At one point, he noticed a big kid wandering around as though lost.

"What position do you play, son?" he inquired.

"To tell the truth, sir," replied the boy, "I've never played before. But I read a book this summer and I sort of figure I'd make a good end." Bo had him sign with the ends.

"We've had a lot of kids around here before," Coppedge told an assistant. "But this is the first time I've had one who prepped at Simon and Schuster."

Those N. Y. Giants pro footballers sure kept the fans in their seats to the very end of all their first four exhibition games. They tied Green Bay in the last two minutes, then lost in the final 45 seconds. They beat the 49ers with a td at the final gun, missed beating the Rams with a field goal in the last 38 seconds, and beat the Colts with nine seconds to play.

Before the All-Star game in Milwaukee last summer, the Braves' management staged a parade of famous Wisconsin-born athletes. In one of the leading automobiles rode Ernie Nevers, the fullback on practically every all-time All-American.

Alas, time dims the memory and one kid turned to another. "Who is he?" he asked.

"That's Ernie Nevers," replied the other.

"And what did he ever do?"

The questioner looked at the questioner in disgust. "You're dumb," he snapped. "Didn't you ever hear of Tinker-to-Nevers-to-Chance?"

A new record was set last month: Two WHOLE days went by without a sensational expose on Ronnie Knox, UCLA's great wandering minstrel of a football player. Ronnie has all the experts wondering how high the Bruins went to get him. The only direct appraisal of his value was made by a Los Angeles sportswriter who quipped:

"I'd say Ronnie Knox is almost as valuable as his brother, Fort Knox."

That Maryland-UCLA game on September 24 was a beauty—a hard, vicious blocking and tackling imbroglio between two truly great clubs. Both teams are rated so highly that when George Marshall, of the Washington Redskins, cracked at a pre-game party, "I've heard so much about injuries on both teams that maybe I ought to lend them some of my Redskin players," he was promptly squelched with: "Don't bother; they couldn't make either team!"

Baseball players aren't particularly noted for their generosity of either mind or money. But sometimes . . . well, let's start at the beginning. It happened in the Kansas City Union Station, where the Senators were

awaiting a train. They spied one of those mechanical horses and promptly grabbed little Ernie Oravetz and stuck him on it.

Looking wistfully on were a five-year-old boy and his seven-year-old sister, who had only one arm. Big Frank Shea saw the youngsters and his heart melted. He put the little boy on the horse, but when he tried to put a dime in the machine he discovered it was out of order.

So Shea began rocking the horse himself, simulating a ride. Then one by one the other players took over. For almost an hour, the gang of ball players rocked the two kids on the machine. It was a great "win" for the Senators.

Back in our May issue, Lee Angelich, hoop coach at Porterville (Cal.) H.S., wanted to know whether anybody could match his star forward's foul shooting record of 116 conversions out of 132 attempts in 12 league games.

Well, Leedio Cabutti, coach at Heroin (Ill.) High, offers what he believes is a stopper. He has a 5-7 guard, Dick Jones, who's hit for 228 out of 271 for a .841 average over two seasons of play. And Dick has another year in which to add to his amazing total.

Jack Kramer, the great tennis pro, "goofed" a little in one of his telecasts of the Davis Cup matches. He said that Lew Hoad, the Aussie star, looked like a fullback and that "Any pro team would like to have Hoad in their Split T formation."

Somebody ought to tell him that Hoad, though compactly built, doesn't weigh more than 170 pounds and that none of the pro teams use the Split T—they hate it and won't have any part of it.

The coach had finished his pep talk and the squad was resting in the locker room. Talk turned to more important things.

"My girl said she'd be faithful to the end," claimed one of the boys.

"Gee, that sounds great."

"Yeah, but I'm the quarterback."

When Sonja Henie toured India, publicity was a major problem? How could you promote an ice show among people who knew nothing about ice or ice skates? It was Sonja herself who came up with the answer. She composed the following text for her posters:

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The kid came out for the rifle team and scored a bull's-eye in his first attempt. His next nine shots didn't leave a mark on the target.

"How do you account for those misses?" barked the coach. "That first one must have been beginner's luck."

"Sorry, Coach," replied the tyro. "I thought I had to get all the bullets through the same hole!"

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Hybrid Defense

(Continued from page 30)

and X-5 usually call the switches, since they can observe the entire court and anticipate the moves of the opposing players in front of them.

If the offense set up a permanent pivot position at or below the foul line, one of the rear defenders could move up and play him partially, always alert for the necessity of a switch or to gain good rebounding position. However, this defensive adjustment would depend on the manner in which the offense spread its players and the amount of mobility they maintained in the area near and below the foul line.



Diag. 4

If possible, we would prefer to keep our big men underneath and have one of the little men drop in front of their pivot player. Once a shot was taken by the offense, the rear men moved to gain good rebounding positions on each side of the foul lane while the little men remained alert for a possible fast break opportunity.

By setting up a pattern for strategic retreat in the wake of offensive maneuvers, we compensated for one of the basic weaknesses of the pressing defense. Too frequently in the all-court press, the defenders fail to come back to help out once an assignment is missed. As a result, the defense virtually cedes the basket to their opponents, and some intangible losses in morale may very well develop.

On the other hand, by making the offense work hard for every point, we might suddenly pressure the offense into a rash of errors.

A second problem which plagues the all-court press and the 3-2 zone is the tendency to leave the middle of the scoring territory wide open. By trailing our defensive players into this area, we increase our de-

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fending strength and make possible more frequent interceptions. And by alerting the defenders to the possible weakness in this area, we prepare them to switch, collapse, or slough off on offensive players on the weak side of the ball.

The advantages of the hybrid defense showed up in the number of errors committed by the opposition—thanks to the harassing tactics, the speed of the little men, who were easily interchangeable once they became tired, and the proper application of good defensive techniques. Our opponents were forced into as many as seven to twelve errors per game—via walking, poor hurried passes wide of their intended mark, interceptions, and errors caused by the toll of fatigue.

The difference in gaining more frequent possession of the ball was demonstrated in our won and lost record for the season—twelve wins against four losses. The hybrid defense proved to be a good strategic weapon under the circumstances which led to its creation.

(Bobby Sand may be reached at 160-53 17th Ave., Whitestone 57, Queens, New York City.)

Warm-up As an Aid

(Continued from page 51)

takes before getting his best throw. He should keep actual count so that he can tell pretty accurately whether his best puts come between the 12th and 15th throws or between the 15th and 18th.

Once he's established his pattern, he knows just about how many practice puts to take before beginning his event. As much as possible, he should regulate his preparation so that he can get the number he wants in practice on the day of the meet. There'll be some variation, of course, but the perfection of this phase can develop the boy's confidence, since he'll be able to see the purpose of his warm-up.

Thus we might go on, event by event, through the whole schedule.

We should note that the pole vault and the javelin throw are partially sprints.

We need to give some attention to the fact that speed is a factor in the discus and the hammer throw.

We should perceive that the back and shoulder muscles of the pole vaulter and hurdler will be taxed as surely as those of the shot putter, discus thrower, and hammer thrower.

Knowing these facts, we'd be very foolish indeed not to set up warm-up patterns that will put our athletes on the mark or in the circle ready for their best efforts, instantly.

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By **FLOYD SCHWARTZWALDER**
 Head Coach, Syracuse University

Defensive Football Trends

Written for the Eastern Intercollegiate Football Association

WHENEVER a genuine football upset has been pulled, it's a pretty good idea to study the defensive plans and strategy of the winning team. Chances are they sprung a "new" defense or defenses at the favorites which not only confused their blocking assignments but couldn't be solved until it was too late to do them any good.

Defense plays a far greater role in football than ever before. Years ago, there were two axioms which met with general acceptance, viz:

1. A good offense is the best defense.
2. Give us two big, strong tackles and we'll stop anybody.

The return to one-platoon football together with today's wide open, high scoring game has forced a re-evaluation. While strong tackles are still essential to a stout defense and a good attack can keep possession of the ball, many coaches now figure that the deep secondary are the most important defensive operatives. Weak links here probably add up to quick or cheap touchdowns and a long run on the aspirin bottle.

Agile, active linebackers and clever, mobile ends are musts, too, because so much of the modern game is directed at getting outside. In fact, in their selection of a starting team, more and more coaches are picking their best 11 defensive players, regardless of their positions.

Today's game of speed coupled with excellent ball-handling and passing makes it imperative to devote more time and energy to defense. A recent check among Eastern coaches revealed that most of them were spending almost 50% of their practice time on defensive play.

Here are a few trends you might be watching for these days:

1. More and more teams will be slotting (playing in the holes) against the Split T. Reason: Since Split T is based on straight-ahead

blocking, the slotting forces it to cross-block or use other blocking techniques.

2. Blind plugging (rushing linebackers) will be reduced, with more delayed plugging being employed. Slip or screen passes plus well-executed traps are exploiting pell-mell plugger rushing.

3. Reduction or elimination of looping defense. Straight-ahead blocking and quick openers have overpowered the loop.

4. More stunting — combination play of two or three defensive players who constantly vary their tactics while covering an area, hoping to confuse the blockers.

5. More "patsying" — defensive blocking or legally holding up pass receivers on the scrimmage line, upsetting the timing of pass plays.

6. More widespread deployment of the most powerful linemen in the middle, or on the nose of the ball, with the more active interior linemen being employed at the tackle spots. The quick sneak must be eliminated.

7. More last-second jumping to prevent offenses from checking signals and taking advantage of set defenses.

8. Fewer double safety men against punt formations. More T quarterbacks are expected to retain their positions under center, ready to toss a quick pass. The ball will be snapped through the qb's legs for the punt.

9. More spread formations on punts, which will force the kicking team to be more conscious of protecting against inside or "up-the-middle" returns.

Here are three other things to check in the first few minutes of every game. The answers to these might give you the defensive thinking of the rival coaches:

1. On the kickoff, is the ball kicked flat or is it teed up and booted straightaway? If a flat kick

is used, the team probably respects the opponents' speed. If the ball is booted from a tee, the coach is probably figuring that his overall team speed can cover the kick before rival breakaway backs can be sprung loose—and, remember, the squad with the best team speed usually wins.

2. Is a team employing one or two conventional defenses, or is it employing multiple or varied styles? One or two defenses could mean that the coach is figuring he has better personnel. Multiple and unusual defenses—and some coaches are using a dozen or more a game—might mean that the coach is figuring he's out-personneled and his unusual defenses might even things up by confusing the opponents.

3. In a forward passing situation, is the defense rushing seven or more men, or four or less? Mobile, active, speedy passers are seldom rushed by more than four; covering the receivers is usually the strategy here. Against slow, less mobile passers, a coach might "put on the rush," getting to the passer before he can get his throw away.

Naturally, good defense requires aggressiveness, desire, and hard, sure tackling. Everybody must aid in pursuit and must gang-tackle, whenever possible.

One thing we try to stress when teaching defense is the scoring possibilities when you DON'T have the ball. There actually are more ways to score on defense than on offense (five to three).

On defense, you can score via a blocked kick, recovered fumble, intercepted pass, punt return, or safety.

On offense, you just have to run, pass, or kick a field goal.

Nevertheless, looking at my schedule, I'd just as soon try to keep the ball away from those powerhouses and take my chances on offense!



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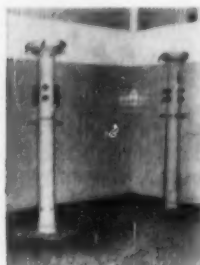
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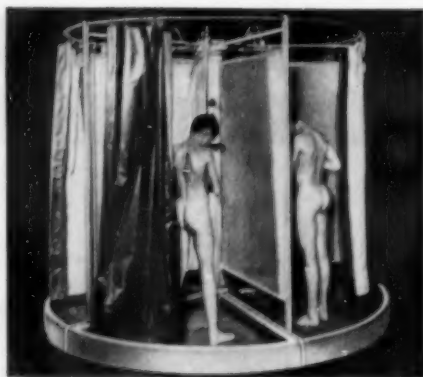
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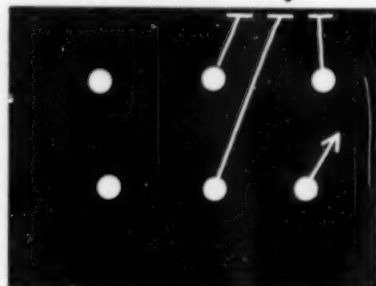
Defensive Volleyball

(Continued from page 43)

court prematurely, the opposing set-up man can set the ball to the opposite spiker on the front line. This would give this spiker only one block to hit past.

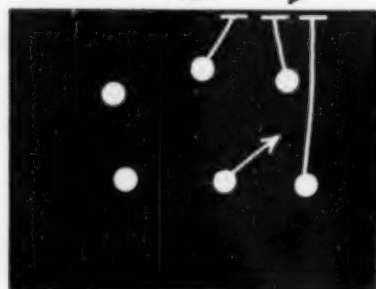
Diag 6 shows how the outside back player can block at the net whenever the ball is spiked from his side of the court. Both back players must come forward, anticipating the spike from the outside. Whenever the set-up pass is made to the opposite side, the outside back man should move back into his playing area.

NET



Diag. 5, Center Back Going In

NET



Diag. 6, Outside Back Going In

The rule on this system is: "Whenever the ball is either blocked or spiked directly in front of him on the front line, the back-line player must go up to cover for his teammate's spike or block the opponents' spike."

All blocking systems depend on the ability of the individual player to adjust to the offense. If the opponents are a weak spiking team, only two blockers may be needed. Therefore, none of the back men should move up to block, but should remain in their areas in readiness to play the ball.

To be a good blocker, a player must be able to move quickly to the

spike, be able to jump, know good arm and hand position, and know how to time his jump.

The blocker should move directly in front of the ball with short steps as the pass for the spike is made. The jump must be timed so that the blocker's hands come in front of the ball just as the spiker hits it. The blocker may watch the opposing spiker and go up at the same time—making the block coincide with the spike.

The jump should be made about two feet from the net, with the arms not directly overhead but moving forward toward the net. This prevents the body from making excessive net contact and allows better recovery of a blocked ball.

The hands should be tilted back at the wrist, not held straight in line with the arms. This keeps the blocker from going over the net and helps to slow up the spike. If the spike is driven into the heels of the hand, it will rebound back into the opponents' court. If the block isn't timed exactly with the spike, the ball will be driven off the fingers.

ALWAYS WATCH THE BALL

Blockers shouldn't jump so high as to expose the forearm over the net, lest the spike be driven down the arms to the floor in front of the blockers. The blockers should keep their eyes open and watch the ball at all times. The fingers should be spread and slightly flexed, firm but not stiff.

Players not blocking at the net must be ready to move in any direction in order to recover a partially blocked ball or a spike hit past the blockers. They should stand in a stride stance slightly crouched with the hands up. A player can usually move faster from a stride stance than from a square stance and can drop his hands (if need be) quicker than he can raise them.

In stopping a spike that misses the block, the player must get in front of the ball for a two-handed overhead pass. If the spike comes below his waist, he should use the hand or arm to deflect the ball upward. This is done best by clenching the hand, with the palm toward the net and the forearm almost parallel to the floor. This arm position will deflect the ball upward and allow a teammate to pass to the net for the spike.

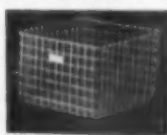
One of the most successful volleyball coaches in the land, Bill Odeneal of Florida State University has authored three previous articles on the sport. Last November he was represented with a piece on offensive volleyball.

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- ☐ Catalog of complete Sports Line

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- ☐ Additional Copies of Phog Allen Poster

ALUMINUM ATHLETIC (41)

- ☐ Brochure on Hurdles, Crossbar, Standards, Vaulting Poles

AMERICAN WIRE (63)

- ☐ Folder on Locker Baskets and Uniform Hanger

ATHLETIC PRODUCTS (61)

- ☐ Information on Shock Knee Brace and Guardsman Face Guard

ATLAS ATH. EQUIP. (55)

- ☐ Catalog on Gym Mats and Mat Covers

AUDIO EQUIPMENT (37)

- ☐ Brochure on Power Megaphone

BECONTA (37)

- ☐ Information on Olympia Track Shoes

BECTON, DICKINSON (29)

- ☐ Coaches Manual on Prevention and Treatment of Athletic Injuries

BENSON OPTICAL (45)

- ☐ Information on Safety Athletic Glasses

BERLIN CHAPMAN (36)

- ☐ Information on Ez-A-Way Bleachers

BRADLEY WASHFTN. (62)

- ☐ Catalog on Multi-Stall Showers

BROOKS SHOE (26)

- ☐ Catalog on Athletic Footwear

BROWN, M. D. (57)

- ☐ Information on Basketball Timers and Scoreboards

CORTLAND RACKET (39)

- ☐ Tennis Tactics Book
☐ Badminton Book

DUCOMMUN, M. (60)

- ☐ Catalog of Complete Line of Stop Watches

FAIR PLAY (46)

- ☐ Booklet, "What's the Score"

FENNER-HAMILTON (55)

- ☐ Literature on Gym-Master Line of Trampolines

GENERAL SPORTCRAFT (2)

- ☐ Official Game Rules Booklet

GRISWOLD, LARRY (61)

- ☐ Information on Trampoline Bed and Manual

H. & R. MFG. (64)

- ☐ Booklet on Dry Line Markers for All Sports

HAND KNIT (50)

- ☐ Information on Wigwam Socks for Every Sport

HARVARD TAB. TENNIS (24)

- ☐ Table Tennis Teacher
☐ Table Tennis Tournament Charts

HILLYARD CHEMICAL (4)

- ☐ Guide "How to Plan Gym Floors for Favorite Sports"

HUSSEY MFG. (47)

- ☐ Illustrated Seating Catalog

IMPERIAL KNITTING (47)

- ☐ Information on Award Sweaters

JACUZZI BROS. (38)

- ☐ Brochure on Hydromassage Device

JAYFRO ATH. SUPPLY (64)

- ☐ Catalog of Basketball Steel Chain Nets

LEAVITT BLEACHER (53)

- ☐ Catalog of Complete Line of Bleachers

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